Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
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Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147

REPLY COMMENTS OF COVAD COMMUNICATIONS COMPANY

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Covad is the leading nationwide provider of broadband connectivity using digital subscriber line ("DSL") technology. Covad's nationwide facilities-based broadband network reaches nearly 45% of the nation's homes and businesses, offering residential and business users a wide variety of innovative and competitively priced broadband services. Covad offers consumers and small and medium-sized businesses a competitively priced alternative to the Bells' high-priced T-1 services. Covad also provides residential consumers the nation's lowest price DSL offering, Telesurfer Link, which provides broadband connectivity at or below the price of dial-up services.[1] Covad competes directly with the retail broadband offerings of the Bell Operating Companies ("BOCs") and other incumbent local exchange carriers ("ILECs"),

[1] Covad's Telesurfer link allows consumers to try broadband service risk-free for the price of dial-up. Telesurfer Link is available nationwide for $21.95 for the first four months, then $39.95 thereafter, with no annual contract or equipment fees.

providing vital innovation and price pressure on the BOCs that has sparked widespread DSL deployment in the five years since Covad launched the first commercial DSL offering in the nation.

Covad is collocated in nearly two thousand central offices throughout the country. As a facilities-based provider, Covad relies on the ILECs to provide unbundled transmission facilities (loops and interoffice transport) and the operations support systems ("OSS") necessary to facilitate ordering and provisioning of such facilities. In short, Covad relies *only* on the core bottleneck elements of the ILEC networks – the transmission grid.

Only the ILECs contest the rights of Covad and other data competitive local exchange carriers' ("DLECs") to these transmission facilities they need to operate their businesses. But arguments that would deny CLECs access even to the legacy bottleneck loop plant show only how far the ILECs have departed from any plausible understanding of the Act's unbundling requirements. Data CLECs, after all, are the paradigmatic competitors the Telecommunications Act was intended to foster. They lease only those elements for which there are dramatic economies of scale and scope – loops and transport – and combine those elements with their own facilities to provide services not offered by the ILECs.

Despite this, in their opening comments the ILECs suggest that more "real" competition could be created by pulling the plug on the core elements that DLECs needs to provide service. In particular, they claim that there is already an abundance of competition from cable modem services, so there is little to be gained by promoting intramodal competition. And, they argue, while there is little to be gained from unbundling, there is much to be lost, as "promiscuous" leasing requirements both deter CLECs from building robust competing networks, and deter ILECs from expanding their networks to provide new and innovative services.

In support of these claims the ILEC cartel submitted a "Fact Report" that neither contains relevant facts nor reports on anything else of relevance to the Commission's statutory inquiry. Rather, the "Fact Report" simply make self-serving, exaggerated and overly generalized statements about the current state of competition. The pot shots the fact Report takes at DLECs prove only that the ILECs simply do not want competition from broadband providers like Covad. For example, the ILECs suggest that DLECs should not be entitled to UNEs, because DLECs "promised to deploy broadband services faster and more efficiently than incumbent local telephone companies or cable operators."[2] That's a bad thing? Covad is proud to offer lower prices, better customer service, and more innovative varieties of broadband than the ILECs and cable companies.[3] The ILECs further assert that Covad is interested only in the "resale of ILEC loops, with relatively little of the CLECs' own facilities-based investment."[4] This is flat wrong. Among numerous broadband CLECs, Covad raised nearly $3 billion, built a nationwide facilities-based broadband network from the ground up, and today uses that network (which is constructed and paid for) to offer broadband services to nearly 45% of the nation's homes and businesses. Covad uses UNE transmission facilities that would otherwise be idle, stranded investment, and links those bottleneck facilities to its own, facilities-based network.

Finally, the ILECs makes the following bizarre claim: "Various CLECs have obtained UNEs to provide connections between end-user customers and those customers' ISPs." This is what data CLECs like Covad do with respect to broadband Internet access. The CLEC in this scenario is typically little more than a regulatory fiction – a device to use a particular regulatory classification to obtain UNE-based "carrier" connections and prices lower than those available to

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[2] ILEC "Fact" Report at V-15

[3] *See, e.g.*, DSL Reports customer service survey, available at http://www.dslreports.com/gbu, ranking Covad ahead of all four Bell companies in customer satisfaction for DSL services. (visited May 22, 2002). For example, Covad ranks third on the list, and Verizon ranks second to last.

mere "customers."[5] If Covad is a "regulatory fiction" when it provides Internet access services, then so is every ILEC providing DSL.[6] Covad uses bottleneck transmission facilities, bought and paid for by a century's worth of captive ratepayers, and links those loops to Covad's own facilities (DSLAMs and packet switches). ILEC retail DSL offerings are structured the exact same way. Covad is a broadband provider whose network looks exactly like any of the ILEC networks (except Covad's is nationwide, and the ILECs only offer service in their own monopoly territories). The true "regulatory fiction" is the notion that consumers would ever have seen the launch of DSL services had Covad not been the first to bring them to market in this country.

As discussed in greater detail below, and in the attached declaration of economic expert Terry Murray, the ILECs' more general arguments are wrong on all counts. Cable modem competition creates at best a limited duopoly, and the ILECs fail to explain how rules preventing the development of more robustly competitive markets would benefit the public. When the Commission considers cable modem and other sources of competition, it should conclude that these broader competitive considerations merely reinforce the need to unbundle loops and transport facilities to permit intramodal competition to develop.

As Terry Murray demonstrates in her declaration, the ILECs' arguments about the harms caused by leasing also entirely lack merit. They make claims on the basis of unsound and over-general economic theories while ignoring the real-world consequences of their proposals and the real economic choices that drive particular investment decisions about particular elements. As the D.C. Circuit has recently stressed, the "impairment" inquiry calls for specific and concrete

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[4] ILEC "Fact" Report at V-15.

[5] ILEC "Fact" Report at V-22.

judgments of a kind that are notably lacking in the ILECs' criticisms of leasing. Such analysis proves beyond any dispute that CLECs are impaired without access to line-shared loops and the other transport facilities necessary to offer broadband services. Moreover, given the Supreme Court's recent conclusion in *Verizon v. FCC*[7] rejecting the ILEC "investment disincentive" argument, it is impossible for the Commission to accept that ILEC argument as a basis for scaling back unbundling requirements. Indeed, the Bells have effectively conceded that the relief they need – carving out an exception to loop unbundling – must come through legislative action to amend the 1996 Act. If Congress wanted to draw an old wires/new wires dichotomy, or copper/fiber dichotomy, making some facilities available for competitors and not others, it would have done so expressly in the 1996 Act. Congress having declined to make any such distinction, the FCC must apply the Act as written, not as the Bells would wish to have it amended.

The debate over the competitive landscape has intensified in recent weeks, given the current crisis in the telecommunications sector. Consistent with their views that all ills of the industry can be traced to the "promiscuous" unbundling of ILEC networks, the ILECs now are pointing to the spate of accounting fraud that has rocked the industry as further proof that unbundling is unwise. There is, of course, no such link. Instead, investors and consumers are looking to the Commission to restore confidence and stability to the sector. The way to accomplish this crucial goal is to see through the rhetoric about "incentives" and "false competition," and instead base conclusions on record evidence and sound economic principles.[8]

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[6] Indeed, under this theory, exchange access telephone service – which merely uses local loops to provide end users with access to long distance service providers – is a regulatory fiction.

[7] 122 S. Ct. 1646 (2002).

[8] The European Union, at least, has rejected the false rhetoric of scaling back competition in response to industry crisis. See "EU Official Pushes Local Loop Unbundling," Legg Mason Washington Telecom and Media Insider, July 12, 2002 **(**"The European Union continued its drumbeat pushing for increased local-loop unbundling when Mario Monti, the Commissioner for Competition Policy, held a hearing on the issue. Mr. Monti warned that local-loop unbundling was proceeding too slowly in Europe and that the industry's distressed financial state did not

That record demonstrates conclusively what sound economic principles would predict: that competition is the driving force behind telecommunications investment and innovation. As the Commission concluded in its second 706 Report to Congress, the significant "factor spurring [the] rise in investment appears to be the introduction of competition into the telecommunications market."[9] Indeed, the Commission concluded that the "tremendous investment in DSL deployment" by the BOCs was "spurred" by the "availability of unbundled network elements and linesharing."[10]

And while the D.C. Circuit has required the FCC also to consider the broader competitive framework as well as CLEC impairment, even if its decision ultimately becomes law, it would not change the result one whit: considering a second competitor for the few retail consumers that are lucky enough to have a choice merely converts a monopoly into a limited duopoly, and this highly concentrated duopoly market allows each market participant to retain substantial market power to raise prices and restrict services. No sensible regulator would permit such a concentrated market to develop, for example, by merger, and, *a fortiorari*, it would violate the most fundamental precepts of the Telecommunications Act to restrict unbundling to prevent competition from breaking open such an oligarchic market.

In what follows, Covad addresses these ILEC arguments as they must be considered in the context of each of the unbundled network elements needed to provide competitive broadband services – line shared loops, line split loops, hybrid copper-fiber loops, the transmission facilities

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provide an excuse for retreating from the drive to allow competitors to lease incumbent networks."). It would be a shame if the FCC dragged this nation's telecom sector further down by failing to realize what the nations of Europe already have: that incumbents will *always* call for a reduction in competition, and consumers will *always* be harmed by a return to monopoly. Europe gets it. Will the U.S.?

[9] *In Re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 15 F.C.C.R. 20913, ¶ 185 (2000).

[10] *Id.* ¶ 196.

necessary to connect those loops to Covad's switches and ATM network, and the OSS that is needed to order and operate the leased facilities.

I. LEGAL REQUIREMENTS FOR UNBUNDLING

In assessing whether an individual element should be unbundled, Section 251(d)(2) of the Telecommunications Act requires the Commission to consider, at a minimum, whether competitors would be impaired without access to that element. In the *UNE Remand Order*, the Commission determined that it would assess impairment based on five factors – cost, effect on timeliness of entry, quality, ubiquity, and impact on network operations.[11] In addition, the Commission explained, it would consider whether unbundling would lead to rapid introduction of competition, promote facilities-based competition, reduce regulatory obligations, promote certainty, and be administratively practical.[12]

In *United States Telecom Ass'n v. FCC*[13], the D.C. Circuit remanded the *UNE Remand Order* to the Commission based on its conclusion that the Commission's impairment analysis was defective on two grounds: (1) the Commission had not explained why the cost disparities used to justify unbundling of particular elements were different than those faced by "virtually any new entrant in any sector of the economy"[14]; and (2) the Commission had not adequately considered whether rules should be geographically differentiated for particular elements.[15] Moreover, in its order remanding the *Line Sharing Order*,[16] the D.C. Circuit has required the

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[11] *In re Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 15 F.C.C.R. 3696 (1999), at ¶¶ 65, 71-100.

[12] *UNE Remand Order* at ¶¶ 101-116.

[13] 290 F.3d 415 (D.C. Cir. 2002).

[14] 290 F.3d at 426.

[15] *Id.* at 426-27.

[16] In re Deployment of Wireline Services Offering Advanced Telecommunications Capability, 14 F.C.C.R. 20912 (1999).

Commission to consider the implications of intermodal competition from cable and other sources, something the Commission had already committed to do.[17]

On July 8, 2002, the Commission filed a petition for rehearing of the *USTA* decision with the D.C. Circuit, arguing that the panel's decision was directly contrary to both the longstanding principles of *Chevron* deference, and to the Supreme Court's decision in *Verizon v. FCC*. Covad and other CLECs also filed petitions in support of the Commission's rehearing request.

In what follows, however, Covad presumes that the *USTA* decision controls and explains why even under that decision each of the UNEs necessary to provide DSL – loops (including lineshared loops) and transport – must be unbundled. At the outset, Covad notes that while loops, as well as transport (along most routes), are essential facilities, the D.C. Circuit did not suggest that leasing was appropriate only where the leased element is an essential facility. To the contrary, the court properly acknowledged that the Act did not require use of that doctrine's criteria.

While the D.C. Circuit's decision did not require the Commission to adopt an unbundling standard based on the essential facilities doctrine, it did require the Commission to focus on cost factors that differentiate telecommunications from other industries. A particularly useful method of determining the elements for which telecommunications is different from competitive industries and to give further definition to the "impair" standard is to apply the guidelines used by the Department of Justice to assess whether horizontal mergers should be approved. Like the Act, the *Horizontal Merger Guidelines* were designed to ensure that a market is not concentrated in a manner that allows companies to exercise market power to raise prices above competitive

[17] *See* NPRM ¶ 3; *In re Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 16 F.C.C.R. 22781 (2001).

levels.[18] They are based on generally accepted economic theory, and they have stood the test of time, having been applied in numerous judicial and regulatory proceedings.[19] Indeed, if anything, applying these *Guidelines* to interpret the Act understates the rigor of the Act's requirements as, unlike the Act, the *Guidelines* were not designed affirmatively to break apart a market that is already concentrated.

The *Guidelines* also enable the Commission to meet the D.C. Circuit's requirement of a geographically disaggregated inquiry. Based on accepted precepts of economic theory, the *Guidelines* define a geographic market as one in which a profit-maximizing firm that was the only seller of a product could impose a significant and nontransitory increase in price such that buyers would not switch to other products, rendering the price increase unprofitable.[20]

Once a market has been defined, the Guidelines provide for a calculation of market concentration based on the Herfindahl-Hirschman Index ("HHI"), which is a formula that takes into account the number of participants in a market and the market share of the different participants,[21] a formula on which the Bells themselves have relied in assessing the competitiveness of the long distance markets.[22] Participants include not only firms already in the market but also firms likely to enter rapidly in response to a price increase – in other words, firms that could enter without facing significant sunk costs.[23] The latter are referred to as "uncommitted entrants." Firms that would incur significant sunk costs to enter – "committed entrants" – are presumptively not counted as market participants. They are only considered if

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[18] For a more fulsome description of the application of the *Merger Guidelines* to the Commission's unbundling analysis, *see* Declaration of Terry Murray (attached).

[19] Murray Decl. ¶¶ 18-20.

[20] *Merger Guidelines*, Section 1.0; Murray Decl. ¶¶ 21-23.

[21] Murray Decl. ¶¶ 26-28.

[22] *See, e.g.,* McEvoy Decl. ¶ 66, *In the Matter of Application by New York Telephone Company for Authorization to Provide In Region InterLATA Service*, Docket 99-295.

they are likely to enter the market (they could profitably enter even if current market participants responded by dropping their prices), if they could enter in a timely fashion, and if their entry was sufficient to mitigate the ability of current market participants to sustain price increases.[24] The HHI calculation produces a numerical result that shows whether a market is highly concentrated, moderately concentrated, or not concentrated. Any market with five or fewer firms would be highly concentrated.[25] Once a market has six firms, determining whether a market is highly concentrated depends not only on the number of market participants but on their market share.[26] A market in which one firm has 90% of the market and five firms share 10% of the market, for example, would be highly concentrated, but a market in which all six firms each have an equal market share would be moderately concentrated. Even a market with more than ten firms can be highly concentrated if there is one dominant firm and nine very small firms.[27]

The Commission should establish rules pursuant to which unbundling is always required in highly concentrated markets, presumptively required in moderately concentrated markets, and not required in unconcentrated markets.[28] While the Commission cannot itself conduct an impairment analysis for each individual UNE in each individual market, it can determine whether a UNE is typically provided in a market that is highly concentrated, moderately concentrated, or unconcentrated. If an element is typically provided in a highly or moderately concentrated market, it should remain on the national list of UNEs, and states should not be empowered to remove it. This is so both because the ultimate result of a market-specific analysis will usually show that unbundling will be required in these markets to promote overall

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[23] *Merger Guidelines* § 1.0; Murray Decl. ¶ 24.
[24] Murray Decl. ¶¶ 41-49.
[25] *Id*. ¶ 31.
[26] *Id*. ¶¶ 27, 32.
[27] *Id*.

competition and because of the transitional harms that would be caused by delisting particular elements that have previously been subject to unbundling requirements without a determination for a specific market that unbundling is no longer necessary.[29]

As to those elements that are not highly concentrated (which, as set out below, would not include loops of any kind or OSS, and would generally not include interoffice transport), ILECs might be able to request that a state eliminate unbundling requirements in a particular market. They could show that while markets for a UNE were typically highly or moderately concentrated, in a particular geographic market no concentration existed. Or they could show that in a geographic market that was moderately concentrated, there were particular reasons not to require unbundling.

In creating the national list of UNEs based on a determination of whether a market is typically concentrated, the relevant market for the Commission to assess is the wholesale market for the element in question. In assessing whether transport should be unbundled, for example, the issue is whether there is concentration in the wholesale market for transport. That is because the Act mandates that the Commission consider whether competitors are impaired. While the D.C. Circuit has indicated that the Commission must also consider the effect of unbundling on the overall state of competition, the Act's primary focus (required by the statute) remains impairment of competitors. As the Supreme Court concluded in *Verizon v. FCC*, Congress has already decided that unbundling of ILEC networks is an economic good, and the FCC is not left to determine the validity of unbundling that Congress has made mandatory.

Thus, when evaluating the ILEC claims that cable modem is the "real monopoly" in broadband, and that ILECs would invest more in their networks if only competition was

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[28] Murray Decl. ¶ 29.

eliminated, the Commission must be mindful not only that these claims are demonstrably false, but more importantly, they are irrelevant to the statutory "impairment" inquiry that the Commission undertakes in this proceeding. For example, SBC proposes the following new impairment standard: "the Commission should consider the service that the requesting carrier seeks to provide with the facility in question, and whether the market for that service is competitive. The existence of such competition means that carriers are not impaired without access to ILEC facilities, and that the facility should therefore be removed from consideration for unbundling for the service in question."[30] That proposal is not faithful to the statute: neither SBC, nor any of its ILEC brethren, explain how it is that Covad would not be impaired in offering DSL service if Covad didn't have access to transmission facilities. Put another way, none of the ILECs counter the obvious fact that the existence of limited retail broadband competitors, without Covad having access to those competitors' transmission services, does not alleviate Covad's impairment. The statutory requirements, not the ILECs' self-serving policy demands, must control the Commission's actions in this proceeding.

The elements that Covad requires in order to offer broadband services are components of the ILECs' basic transmission grid – loops and transport. The wholesale market for each of these elements is highly concentrated nationwide. It is doubtful that there are any routes for loops or transport in which six or more competitors offer service. Moreover, because of the high sunk costs of the transmission grid, it is unlikely that six or more competitors would enter to serve any of these routes. For the same reasons, in the absence of unbundling, the retail market for broadband services would be highly concentrated. The existence of limited cable competition does not change this. Under the *Merger Guidelines*, a market with two competitors

[29] Murray Decl. ¶¶ 34-38.

is always considered highly concentrated. In what follows, Covad further explains these conclusions.

II. LINE-SHARED LOOPS MUST BE UNBUNDLED

Covad provides broadband services to its new residential customers exclusively over lineshared loops. The Bell companies serve their retail broadband customers in exactly the same manner. There is no dispute on the record in this proceeding that residential consumers can only be served over lineshared loops. Residential broadband – requiring low cost, self-installation, rapid service delivery, and transmission of voice and data over the same line – is possible only because of linesharing. The Bell companies all rely on the availability of the lineshared loop as the core marketing pitch for those retail DSL services, while at the same time they seek to foreclose competitors from deriving the same consumer benefits from the bottleneck loop.[31] Indeed, ADSL service (the means employed by Covad and all four BOCs to deploy lineshared service) was *designed* to operated on the same loop as voice service. ADSL service utilizes only the upper frequencies of the loop, leaving the so-called "baseband" frequencies for the voice services so that consumers can talk and surf the Internet over the same line.

The critical element needed to provide line sharing is the high frequency portion of a loop. Commenters agree that CLECs must have continued access to unbundled DS-0 loops, and there is nothing unique about line shared loops. Even the ILECs do not dispute that CLECs who

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[30] SBC Comments at 12.

[31] Verizon: "Now you can log on to the Internet and talk on the phone at the same time." http://www22.verizon.com/foryourhome/dsl/whatisdsl/NLF_WhatIsDSL.asp. SBC: "Use your existing telephone line. Make phone calls, send and receive data on the same line." http://www.pacbell.com/affinity/san/1,,24,00.html?SRC=http%3A%2F%2Fsw51%2Esbc%2Ecom%2Fctrk%2Fp%2Egif%3F&EI=20020716210134C&E=L&CI=&UI=&EL=&TI=&RI=&RD=. Qwest: "Talk on the phone and surf the Internet at the same time. No need to purchase an additional telephone line." http://www.qwest.com/residential/products/dsl/index.html. BellSouth: "The service lets you send data and voice over the same line so you can talk or fax while you surf." http://www.fastaccess.com/consumer/blsc_whatisdsl.jsp.

wish to provide wireline broadband services would be impaired without access to the ILECs' loop plant, and in particular without access to line-shared loops.

Instead the Bells argue that the existence of cable modem services makes any unbundling of "broadband" facilities unnecessary. In making these arguments the ILECs go far beyond the statute, the facts, or sound economics. The *USTA* decision in no way suggests such a conclusion. The court would not have remanded the Commission's *Line Sharing* decision unless it had concluded that the Commission might re-adopt lineshared loops as UNEs after applying the appropriate legal standard.[32] As Covad now shows, the factors discussed by the D.C. Circuit in *USTA* readily justify continuation of the Commission's existing policies on line sharing. The barriers to entry faced by a competitor attempting to offer broadband services to residential and small business customers using only its own transmission facilities are far greater than those present in other industries. These barriers, for the most part, exist without regard to geography. And an examination of the state of competition as a whole demonstrates that overall competition is enhanced, not hurt, by unbundling of line-shared loops.

A. CLECs Would Be Impaired Without Access to Unbundled Loops

The D.C. Circuit criticized the Commission for relying on economies of scale in assessing whether cost differences impair new entrants without explaining why these economies were greater than those "faced by virtually any new entrant in any sector of the economy, no matter how competitive the sector."[33] In the court's view, the cost differences facing a new entrant using its own facilities must be greater than differences faced by any new entrant to justify leasing. As concerns the loop, as Covad shows in what follows, under virtually any

[32] *See Chemical Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1268 (D.C. Cir. 1994) (holding that remand for further proceedings was not warranted where there did not appear to be *any* basis to support the agency's rule).
[33] *USTA*, 290 F3d. at 426.

standard, in any market, the cost differences faced by a new entrant are so extreme that not even the ILECs argue that CLECs are not impaired without loop facilities.

There is no single market for loops. Every route over which a loop is constructed is its own market. A loop on one route cannot be substituted for a loop on another route. Nonetheless, it is clear that all of these markets are highly concentrated. With the rare exception of large office buildings (and no exception as to lineshared loops), the ILECs are the only competitors that presently own loops. At present, therefore, each of the markets for loop routes is not only highly concentrated; it is a monopoly market.

The analysis does not change by asking whether uncommitted entrants exist, as the *Merger Guidelines* require.[34] There are no uncommitted entrants because there are extremely high sunk costs in constructing loop plant. In part for this same reason, there are no committed entrants that are likely to construct their own loops within two years in response to monopoly prices charged by ILECs. This is apparent from the fact that no competitors began providing loops in the decades in which the ILECs charged monopoly prices.

The fact is that for competitors attempting to provide advanced services with their own loop facilities, the barriers to entry are far too high, and far greater than they are in other industries. The economies of scale and scope obtained by operating the monopoly loop system are simply staggering. Loops are constructed with a root-and-branch structure in which larger cable sizes are used close to the central office, with smaller branches tapering off to serve customers. A CLEC seeking to serve a small number of customers would have to duplicate almost the entire loop plant of the ILEC, including trenching, poles, and wires, and could not take advantage of the economies of larger cable size. In constructing such plant, the CLEC also

[34] *See generally* Declaration of Terry Murray (attached).

would have to obtain access to all of the needed rights-of-way. The fixed cost of constructing loops is extremely high. Moreover, once a loop is constructed, the cost is sunk. Thus, in a passage quoted by the D.C. Circuit, the Supreme Court used loops as the archetypical example of an element that may need to be shared.[35] As a result, even the ILECs do not seriously oppose unbundling of loops.

In addition to being extremely costly, attempting to duplicate ILEC facilities would also be extremely risky, thus raising a competitor's cost of capital well beyond the point where it would be possible to provide competitive services using self-provisioned loops. The cost of constructing transmission facilities is a sunk cost. Once the facilities have been constructed, they cannot be moved. Thus, if a CLEC were to construct facilities but guess wrong as to whether demand would materialize, the CLEC would not be able to use those facilities at a different location. Nor could the CLEC sell the facilities to another carrier that wished to use the facilities at another location.[36] The Commission correctly explained in the *UNE Remand Order* that, "as a practical matter, building loop plant continues to be prohibitively expensive," especially because the loop cannot be relocated to serve a different customer.[37]

Few other industries are characterized by such high fixed costs that are also sunk costs. Even in an industry such as biotechnology, many of the largest costs are not fixed and many of the largest fixed costs are not sunk. The salaries of researchers or leases for office space are not fixed, for example. And other costs, such as the costs of research equipment, are not sunk. The company can always sell the equipment or use it for another line of research.

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[35] *See Verizon,*122 S. Ct. 1672 n..27 (quoted in *USTA*, 290 F. 3d at 426); *see also Verizon,* 122 S. Ct. 1662 (describing loop as the "most costly and difficult" part of the ILECs' plant to replicate).

[36] *UNE Remand Order* ¶¶ 77-78 (discussing sunk costs of loop deployment and collocation as a significant barrier to entry).

[37] *Id.* ¶ 183.

Because it is characterized by severe scale economies, combined with high fixed and sunk costs, the existing telephone network necessarily was constructed with substantial regulatory assistance. The transmission grid is extremely costly, including poles, cabling, conduit, and the price of rights-of-way. When the ILECs built that grid, they did so with the assurance of returns sufficient to cover their costs. They were also often provided access to rights-of-way through eminent domain power. Competitors attempting to market today have none of these advantages.

There are thus no entrants who can enter the market quickly and easily and none that are likely to enter in response to a rate increase even within two years. In the terms of the *Merger Guidelines*, there are no uncommitted entrants and the likelihood that committed entrants would enter within two years is virtually nil.[38] The market is not only highly concentrated. It is a monopoly market.

The ILECs suggest that this analysis does not apply to "greenfield" loops and that the FCC should carve out "greenfield" builds from unbundling rules.[39] "Going forward," SBC claims, "ILECs and CLECs stand in the same shoes."[40] The false premise here is that ILECs enjoy no particular advantage in such situations – but in fact, the ILEC still has the most crucial bottleneck control. For example, SBC still has the central office at which loops would terminate, the rights of way, the conduits, poles, ducts, trenches, and the like that enable it – and no other carrier – to deploy new loop plant. Thus, the Commission cannot view the mere piece of copper or glass as defining the nature of loop impairment – the ILEC controls much more that is vital to

[38] Murray Decl. ¶¶ 60-61.
[39] SBC Comments at 19.
[40] SBC Comments at 14.

its ability to foreclose competitive entry. What the ILEC calls "greenfield" or "new builds" are in fact simply the natural extension of the ILEC's bottleneck loop plant.

The ILECs trumpet CT Communications for its "greenfield" build of its own facilities.[41] They fail to disclose, however, that the "CLEC" CTC is in reality an ILEC. Nor do they disclose, as CTC does in its latest 10-K, that its so-called "greenfield" revenue "is primarily attributable to access lines located at Concord Mills Mall in Concord, North Carolina."[42] The fact is that there was almost no wholesale competition in provisioning of loops and no retail competition in provisioning of local telecommunications services prior to enactment of the Telecommunications Act. Since enactment of the Act, some competition has developed, but pure facilities-based competition has been limited primarily to large business customers in core urban areas. Even the statistics cited by the BOCs in the so-called UNE Fact Report discuss only competition with respect to business customers that CLECs ostensively serve using high capacity loops.[43] Competitors that attempted to enter more broadly by constructing their own facilities have generally failed. There has been virtually no successful build out of loop facilities. Such facilities must continue to be unbundled.[44]

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[41] ILEC "Fact" Report at IV-16.

[42] CT Communications, Inc. 2001 form 10-K, available at http://biz.yahoo.com/e/020401/ctci.html.

[43] ILEC Fact Report at IV-2.

[44] Even under the test proposed by SBC, copper loops must continue to be unbundled. As SBC explains, "SBC agrees that certain of those factors – in particular, cost, timeliness, quality, and operational issues – may be relevant to the evaluation of alternatives." SBC Comments at 29. As to cost, SBC argues that the Commission should determine whether a CLEC would be impaired without access to loops and transport by "employing a test that asks whether the cost difference is so great than an efficient competitor cannot compete at all other than with UNEs." SBC Comments at 35. As to ILEC transmission facilities – loops and transport – there is no question that the costs of duplicating that nationwide transmission grid are prohibitive and impossible for any competitor to bear. Thus, pursuant to SBC's analysis, the Commission must continue to unbundle ILEC transmission facilities.

B. DLECs Would Be Impaired Without Access to Line Shared Loops.

There is nothing unique about a line-shared loop that alters the analysis. Because no carrier is capable of duplicating the nationwide loop plant, it follows, logically, that no carrier can duplicate the upper frequencies of the loop plant. No parties to this proceeding dispute this conclusion. What the Commission previously concluded therefore remains true on the record created here: "[t]here can be little dispute that requesting carriers have not duplicated the incumbent LEC's ubiquitous loop plant, and generally are not providing service with competitive loop facilities."[45]

As the Commission explained "carriers seeking to deploy voice-compatible xDSL-based services cannot self-provision loops."[46] The high frequency portion of the loop is subject to the same fixed costs and economies of scale as the loop as a whole. Thus, most commenters support continued unbundling of line-shared loops. The states, for example, support continuation of line sharing.[47] Indeed, even the ILECs do not generally argue against unbundling of line-shared copper loops. While they make generic arguments against unbundling for advanced services or for new facilities, they do not generally apply these arguments to line-shared copper loops.

For example, Qwest argues that it has *already* spent substantial sums to allow for line sharing of copper loops, that CLECs have made little use of line sharing to date, and that the unbundling requirement should therefore not be applied to fiber-fed loops or to new construction

[45] *Id*. ¶ 43.

[46] *Line Sharing Order* ¶ 37.

[47] *See* State of California and the California Public Utility Commission Comments at 19; Illinois Commerce Commission Comments at 4; Indiana Regulatory Commission Comments at 9; Missouri Public Service Commission Comments at 8-9; New York Department of Public Service Comments at 7.

("greenfield") builds in areas where loops have not yet been constructed.[48] Qwest states, however, that it does not oppose continuation of line sharing for existing copper loops.[49]

The ILECs do argue as a general matter that DSL-based services are new and there is no need to give competitors the chance to lease when they are on equal footing with the ILECs. But even if DSL-based services were new (and they are not), the bottleneck loops those services are carried on are certainly not new. As such, the assertion that DSL is a "new" service does not alter the hurdles facing new entrants as a result of the economies of scale and scope present in the transmission grid; nor does it change the fact that the ILECs had vast regulatory advantages in constructing the plant. DSL is not a new transmission medium; it is way to make use of an existing transmission medium. As such, while some new investment may be required to upgrade ILEC plant to provide advanced services, such investment takes full advantage of the ILECs' extant economies of scale and scope. Competitors are not able to compete with the ILECs without taking advantage of those same economies of scale and scope.

The same analysis rebuts any argument that the content carried over a loop facility somehow changes the bottleneck nature of that facility. The loop does not metamorphosize into a facility that can be duplicated simply because data rather than a human voice travels over it. The content-based definition proposed by the BOCs is exactly the kind of innovation-killer that Congress sought to avoid by requiring unbundling elements where CLECs would be impaired in providing a "telecommunications service."[50] With loops, the same costs that make it

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[48] Qwest Br. at 44-45.

[49] *See also* SBC Br. at 45 (showing that SBC objects to unbundling of broadband facilities only where there is fiber from the switch to the remote terminal). *Cf.* BellSouth Comments at 45-46 (focusing broadband arguments on future technologies requiring deployment of fiber).

[50] As will be shown below, DLEC provision of DSL has led to much innovation that would not exist if unbundling were eliminated. If DLECs were forced to rely on resale of Bell DSL service, innovation would be severely curtailed. For example, the ADSL service offered by the Bells can support maximum speed of 6.1 Mpbs down/640kpbs up, pursuant to ITU-T standards, even though the Bells do not offer such higher speeds.

prohibitively expensive for CLECs to deploy duplicative copper loops to serve voice customers also make it prohibitively expensive to deploy identical copper loops to serve data customers.

Nor do DLECs have available any other alternatives. DLECs could not lease the entire loop and use that to provide only DSL service, while the ILECs were able to make use of the same loop to provide voice service as well. The inefficiency in doing so would simply be too great.[51] Indeed, DLECs that entered the market prior to the line sharing requirement generally failed. Proof that it is not feasible to offer residential DSL service over stand-alone loops comes from every single Bell company – they all offer exclusively lineshared DSL services. If Covad were forced to deploy residential service at current market prices over stand-alone loops, Covad would lose money on every single line. So would the BOCs. If the BOCs were able to use lineshared loops and Covad were not, Covad would have no choice but to raise its residential DSL prices in order to pass along the huge additional costs of using stand-alone loops for residential DSL service.[52] This is exactly the result the Commission sought to avoid by requiring the BOCs to make bottleneck lineshared loops available to their competitors, not just themselves.

DLECs also should not be required to lease loops and provide both voice and data service. While some customers are willing to migrate away from an ILEC to obtain voice services, most are not. Their longstanding familiarity with the ILEC makes them reluctant to

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[51] Murray Decl. ¶ 67.

[52] Stand-alone loops require Covad to bear the additional cost of the ILEC truck roll for an ILEC technician to provision the loop, the Covad truck roll for the Covad technician to install service, the technical support for installation (consumer self-install is not possible when a stand-alone loop is used), and the additional cost of ordering, provisioning, and troubleshooting stand-alone loops. None of these costs are present for a lineshared loop, and these additional costs all combine to add literally *hundreds of dollars* to the cost of simply installing a single residential DSL line. In addition, consumers served over a non-lineshared loop would have to wait at home *twice* (once for the ILEC technician and once for the Covad installer). In Covad's experience, customers given the choice between waiting at home two separate days for Covad, and waiting at home *zero* days for ILEC DSL, will chose ILEC DSL to avoid the hassle.

switch to a new voice carrier.[53] Because consumers today are unable to purchase ILEC retail DSL services without also purchasing the retail voice service from the ILEC, the Commission's linesharing rules provide consumers the only means of subscribing to different residential voice and data services over a single line. If the Commission were to rescind its linesharing rules, ILECs would be able to tie purchase of ILEC DSL to purchase of ILEC voice service unchecked by competitive entry, thus ensuring that the ILECs would leverage their near-stranglehold over the voice market into control of the DSL sector. Unbundling line-shared loops, on the other hand, enables competitors to offer DSL to consumers who may want to keep the ILEC voice service, but choose another company for DSL. More customers are willing to try new competitors for DSL service than for voice service because broadband services are relatively new.

If DLECs were forced to lease complete loops and thus forced by the FCC to deploy a nationwide voice network as a prerequisite to offering residential broadband services, they would also be forced to face all of the costs and difficulties associated with provision of voice service, including the difficulties of coordinated cutovers for voice and deployment of circuit switches.[54] Even if DLECs provided voice service using the unbundled network elements platform, DLECs would be forced to develop marketing, billing and customer care infrastructure for voice customers.[55] No advantage for competition is gained by so forcing DLECs to offer voice service. As the Commission already concluded,"[r]equiring that competitors provide both voice and xDSL services, or none at all, effectively binds together two distinct services that are

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[53] *Cf. Line Sharing Order* ¶ 48.

[54] Given current capital constraints in the telecommunications sector, it should not be difficult for the Commission to understand how impossible it would be for Covad to secure the huge sums necessary to finance the construction of a nationwide voice network. If the Commission required Covad to utilize standalone loops for residential DSL service, that would be Covad's only viable option.

[55] *Line Sharing Order* ¶¶ 44, 47.

otherwise technologically distinct. Such bundling . . . will drive investment away from the provision of advanced services."[56] It would deny many consumers the benefits of competition.[57] No commenters in this proceeding dispute this critical finding in the Commission's *Line Sharing Order*. There is thus no evidence in this record that could lead the Commission to alter its earlier conclusion that CLECs are impaired in their ability to offer xDSL services without access to lineshared loops.

CLECs are also impaired in their ability to offer xDSL service more generally. Competitors such as Covad cannot compete using intermodal alternatives. They have already invested substantial sums of money to compete using line-shared loops, almost all of which would be wasted if they were instead forced to compete through wireless or cable technologies. Existing cable, wireless and satellite providers are not, in any event, providing access to their networks. Indeed, the Commission recently refused to classify cable modem services as "telecommunications services," instead concluding that such services were exempt from the unbundling and interconnection provisions of Title II of the Act. CLECs have no access to the cable plant, and would therefore have to construct their own nationwide access or satellite networks to compete using intermodal alternatives, which would require a massive influx of capital – the exact reason the Commission concluded that nationwide duplication of the ILEC loop plant was impossible.[58] The evidence is overwhelming, therefore, that CLECs would be impaired without access to line-shared loops.

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[56] *Line Sharing Order* ¶ 56; *see also* Murray Decl. ¶¶ 70-72.

[57] *Id.* ¶ 46.

[58] Perhaps the ILECs think this type of massive nationwide multi-hundred billion dollar expenditure is possible because of their belief that CLEC revenue is growing exponentially. The ILECs include in their UNE "Fact Report" a chart of the top 20 CLECs to demonstrate the growth in CLEC revenue. Nowhere do they acknowledge that more than 25% of those 20 CLECs cited as revenue engines are actually in bankruptcy.

C. Consideration of the Broader Competitive Context Reinforces the Fact That Line Shared Loops Should be Unbundled.

Verizon alone argues against line sharing even for existing copper loops, arguing that the existence of intermodal competition and the impact of unbundling on ILEC investment militate against such unbundling regardless of whether CLECs such as Covad could compete without line sharing.[59] The D.C. Circuit as well has required the Commission to consider the impact on cable modem and other intermodal competitors.[60] Presumably, that is because the Act states that the Commission must *at a minimum* consider impairment from the CLECs' perspective, and that given the broader goals of the Act, in the court's view it would be irrational not also to consider the larger competitive context. As Covad shows in what follows, review of the broader competitive environment should lead the Commission to conclude that there is an urgent need to promote competition through line sharing.

At the outset, Covad reiterates that the Act's mandate that the Commission consider impairment demonstrates that the primary focus of the Act's unbundling requirements remains the impairment of new entrants rather than the overall effect of unbundling on competition. And there is no doubt that CLECs are impaired, as they have no access to cable facilities. Thus, Verizon's argument regarding intermodal facilities is largely, if not wholly, irrelevant.

In any event, the opening comments demonstrate that line-shared loops are essential to the growth of competition in retail broadband offerings for residential and small business customers. A substantial number of customers lack access to cable modem service altogether. More important, the existence of a single alternative to ILEC DSL for a minority of customers

[59] Verizon Br. at 83-84; 86-87.

[60] As Covad argued to the D.C. Circuit in its petition for rehearing, the Court's conclusion is flat wrong. The Commission too asked for rehearing.

does not result in a competitive marketplace. This is especially so because cable modem service does not provide customers access to the same features and functionality as DSL.

The ILECs claim that more customers use cable modem service than use DSL. As set out below, that is largely because the ILECs were slow to deploy DSL-based broadband services, and only did so when forced by competition from DLECs and cable providers.[61] Cable modems were launched one to two years before DSL, as BellSouth notes, and so the ILECs started the race from behind.[62] But the ILECs are increasing their market share at a faster pace than the cable operators, and there is no reason to think that they will not catch up in due course. Indeed, McKinsey estimates there will be 18.5 million DSL lines in service by 2005 (14.8 million residential/3.7 million business), a jump of over 300%. The ILECs themselves indicate that by 2005, cable's lead over DSL will only be "10 to 15 percent."[63]

In any event, regardless of the relative market share of DSL and cable modem service today, both the ILECs and the cable operators continue to exercise significant market power, because the market is not fully competitive. Even the ILECs acknowledge that many customers do not have access to broadband services via cable. According to the so-called UNE Fact Report, one-quarter to one-third of residential customers do not have access to cable modem service. Among those who currently have access to DSL, fully one quarter of residential

[61] Of course, the Bells not only refused to deploy their own retail DSL offerings, but spent years thwarting competitive entry by competing DSL providers. Thus, Covad had to wage a multi-year battle to secure collocation space to construct its network, to gain access to DSL-capable loops, and to secure timely access to working loops. In short, the Bell companies' relentless campaign in the courts, at the FCC, in the states, and in the Congress, is focused on denying, delaying, and degrading Covad's access to the network elements the 1996 Act intended to make available. Had the ILECs complied with the law, instead of exercising their obvious and unchecked power to thwart competitive entry, Covad would be leading the ILECs in subscriber count too.

[62] BellSouth Comments at 41.

[63] ILEC "Fact" Report at IV-20.

customers do not have access to cable modem service.[64] And only about one-third of the nation's households currently have a choice between DSL and cable modem services.[65]

Business customers have even less access to cable modem service. The ILECs do not dispute this; the UNE Fact Report provides no data on the percentage of business customers that have access to cable modem service. That is because cable companies did not generally build their plant to provide access to businesses in commercial centers, since cable traditionally sold programming that was not targeted at business users. Moreover, and as a result, cable modem services are technically unsuitable for business use.[66]

For those customers who lack access to cable modem service, the only currently available alternative to purchasing DSL from the ILEC is to purchase DSL from a CLEC. Fixed wireless and satellite are not real alternatives. Even based on ILEC statistics, fixed wireless reaches only 3% of residential customers.[67] Fixed wireless also generally costs more and provides less bandwidth than DSL.[68] And while satellite reaches more customers than fixed wireless, it suffers quality problems in comparison to DSL that render it in a different service altogether.[69] As a result of these deficiencies, the total market share of fixed wireless and satellite broadband services is only 1%, based on the ILECs' own figures.[70] Nor is there any realistic likelihood that this percentage will increase substantially in the next two years, the relevant time period under the *Merger Guidelines*. Thus, the "real monopoly" in broadband remains, and will remain, the ILEC loop plant.

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[64] UNE Fact Report at IV-18 to IV-19.

[65] *Id.*

[66] Joshi, Moyer, Richman, Zulevic Joint Decl. ¶ 14 (attached to Covad Opening Comments); *UNE Remand Order* ¶ 189.

[67] ILEC UNE "Fact" Report at IV-19.

[68] Joshi, Moyer, Richman, Zulevic Joint Decl. ¶¶ 22-23.

[69] *Id.* ¶¶ 24-26; Murray Decl. ¶ 64.

Elimination of line-shared loops would therefore leave customers who have no access to cable modem service with only a single choice – purchasing DSL service from the ILEC. As for those customers who do have access to cable modem service, elimination of line-shared loops would leave them "to choose between only the cable company and the incumbent LEC."[71] The ILECs can hardly dispute that two competitors do not produce a competitive market, but instead generally raise prices in tandem and maintain those prices above marginal cost. Indeed, the ILECs themselves have been the harshest critics of the detrimental effects of oligopoly. In arguing that their entry into the long distance market would be beneficial, the BOCs asserted that the presence of AT&T, WorldCom, and Sprint and hundreds of smaller carriers was insufficient to establish a competitive long-distance market.[72] The BOCs here present no evidence to contest what they earlier acknowledged – a duopoly is insufficient to bring about the benefits that attend the creation of a competitive market. As Covad explained above, under the Department of Justice's *Merger Guidelines*, a market is *highly* concentrated unless it has *at least* six firms and will sometimes be highly concentrated with ten or more firms. The existence of two competitors does not come close to creating a competitive market.[73]

Not only does a duopoly result in above-cost pricing, but it limits customer access to desirable features and functionality. The ILECs in their comments do not dispute that ILEC DSL does not provide many of the features that DLECs include in their DSL offerings. Cable modem service also lacks these features. Because cable modem service runs over a platform shared among users, cable providers must offer essentially the same broadband service to all customers.

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[70] ILEC UNE Fact Report at IV-19.

[71] *UNE Remand Order* ¶ 189.

[72] *See, e.g.,* MacAvoy Decl., *In the Matter of Application by New York Telephone Company for Authorization to Provide In Region InterLATA Service*, Docket 99-295, ¶¶ 19-23, 66 (explaining that "[i]t is axiomatic that one to three suppliers in a market seek prices at the highest non-competitive level" and relying on the HHI index to calculate concentration in the long distance market.).

DLECs, in contrast, can tailor their offerings to individual customers because DSL runs over pipes dedicated to each end user.[74] They can offer different network access (such as virtual private networks), different speed of access, and different prioritization of traffic, for example.[75] Moreover, while cable providers cannot guarantee a specific quality of service because the bandwidth available to the customer depends on the number of other users currently on the network, which leads to degradation of service during peak hours, DLECs can provide such quality of service guarantees.[76] Further, the shared bandwidth of cable facilities can lead to electronic theft and snooping, while the dedicated nature of the facilities involved enables DLECs to offer more security for customer traffic.[77] Security is further enhanced because DLECs such as Covad offer static IP addresses, unlike most cable companies. Finally, DLECs are better able to serve business customers who require equally high speeds for transmission of data as for receipt of data. DSL uses facilities designed for two-way traffic, whereas cable plant generally provides far more speed for downloading than for sending data upstream.[78]

Thus, the availability of cable modem service for some customers hardly justifies adoption of policies that would ensure that only ILECs would offer DSL-based broadband services to consumers.[79] Under the DOJ *Merger Guidelines*, the existence of cable modem service is entirely irrelevant to analysis of the wholesale market, as there is no wholesale

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[73] Murray Decl. ¶¶ 57-58.

[74] Joshi, Moyer, Richman, Zulevic Joint Decl. ¶ 14.

[75] *Id*.

[76] *Id*. ¶ 17.

[77] *Id*. ¶ 14.

[78] *Id*. ¶ 16.

[79] Because DSL competition is enhanced, not harmed, by unbundling of line-shared loops, the ILECs' reliance on Section 706 for the proposition that unbundling requirements should not be applied to the broadband market lacks merit. *See, e.g.*, BellSouth Comments at 32. The goals of Sections 706 and Section 251 are perfectly consistent in the context of DSL deployment. Even if that were not so, the Commission has previously rejected the argument that Section 706 provides authority for the Commission to forebear from application of the unbundling requirements of

provision of cable facilities. As for retail, the existence of a single competitor does not alter the concentrated status of a market. This is especially so where, as here, the existence of that competitor has no effect on the conclusion that other competitors are unlikely to enter.

Above all, the Commission should consider the obvious question as to why the entire issue of whether cable modem services have more customers than ILEC retail DSL services is at all relevant to the statutorily mandated unbundling regime. In short, it is not. Did Congress intend to permit the Bells to simply slow-roll and overprice their own DSL services to ensure that the Commission would be duped into eliminating competition because smart consumers chose the lower priced, more widely available cable modem services? The ILEC's own "experts" make that very point: cable modem services are simply less expensive than ILEC DSL. Thus, as the ILEC-friendly Economic Policy Institute reports, cable modem services are typically priced at $35-$45 per month, whereas ILEC DSL services are priced at $40-$50 per month.[80] Little wonder that consumers choose cable modem services over higher priced ILEC DSL services.

But price is not the only reason. More importantly, it should be clear to the Commission that Bell promises that they will deploy *more* broadband – if only competition is eliminated – are demonstrably false. When there was no competition – even *after* the 1996 Act passed, but before competitors launched service – the Bells simply *did not deploy*. Competition, and competition alone – both from CLECs like Covad and cable modem providers – is the only force that will move the Bells to provide broadband.

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section 251. *In re Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 F.C.C.R. 24012, ¶ 68 (1998).

[80] "Putting Broadband on High Speed: New Public Policies to Encourage Rapid Deployment," Stephen Pociask, Economic Policy Institute, July 2002

It is perhaps equally telling that the ILECs also claim not to be the "real monopoly" in dial-up Internet access. Indeed, in their UNE "Fact Report," the ILECs claim to control only 6% of dial-up ISP customers.[81] To the contrary, the ILECs control nearly 100% of dial-up Internet access customers, because nearly every one of those Internet access customers uses an ILEC phone line to access the Internet. The same applies to broadband – ILECs have near 100% control, because they control the local loops. The ILECs ignore the simple fact that the bottleneck loop plant is how consumers access the Internet, whether via dial-up services or broadband

In the absence of lineshared loops, consumer DSL offerings are an economic impossibility. The Commission need look no further than the ILECs' own retail DSL deployments for proof of that simple fact – the BOCs all deploy residential DSL over lineshared loops. The Commission cannot permit empty rhetoric and consumer hostage-taking to drive its policy determinations.

D. Unbundling Line Shared Loops Will Not Deter ILEC Investment.

Since the Act's passage, the ILECs' principal argument against rules permitting leasing of network elements at TELRIC rates has been that it would discourage ILEC and CLEC investment in telecommunications facilities. There is now almost universal acknowledgement that just the opposite occurred: since the Commission's regulations implementing the Act (including in particular the unbundling and pricing rules the ILECs so strenuously opposed) there has been an explosion of investment in facilities by both the ILECs and their competitors. The crippling problems faced by the industry are the result of too much, and not too little, investment in facilities.

[81] ILEC "Fact" Report at V-22.

In a remarkable example of theory trumping fact, the ILECs nevertheless continue to insist that even considering "the rise of a phalanx of aggressive, well-funded facilities-based competitors that are deploying switches, and constructing fiber, copper, coaxial cable and wireless networks," leasing has deterred greater investment.[82] The D.C. Circuit has heard these arguments and also has asked the Commission to consider the extent to which "excessive" unbundling may have discouraged investment.

But the Supreme Court has already concluded unequivocally that the "basic assumption of the incumbents' no-stimulation argument is contrary to fact."[83] Based on the entire record before it, the Court rejected the ILEC argument that unbundling deterred investment:

> Nor, for that matter, does the evidence support [the] assertion that TELRIC will stifle incumbents' incentive either to innovate or to invest in new elements. [I]ncumbents have invested over $100 billion during the same period. The figure affirms the commonsense conclusion that so long as TELRIC brings about some competition, the incumbents will continue to have incentives to invest and to improve their services to hold on to their existing customer base.[84]

Indeed, the ILECs can continue to make their theoretical arguments about investment in general only by ignoring all evidence regarding particular facilities. As the Supreme Court has said, "[a] basic weakness of the incumbents' attack, indeed, is its tendency to argue in highly general terms, whereas TELRIC rates are calculated on the basis of individual elements."[85]

Given this conclusion, the Commission should take close note of what the ILECs did *not* present to the Supreme Court – and have not presented here: any concrete evidence that unbundling *actually deters* investment because ILECs cannot recover their costs. As the Supreme Court concluded, "the incumbent carriers have not even presented us with an instance

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[82] SBC Comments at 10; 122 S. Ct. at 1669.
[83] *Verizon v. FCC*, 122 S. Ct. at 1669.
[84] 122 S. Ct. at 1676.
[85] 122 S. Ct. at 1678.

of TELRIC rates . . . and this despite the fact that some States apparently have put rates in place already using TELRIC . . . . This want of any rate to be reviewed is significant . . . ."[86] Thus, the ILECs relied on empty rhetoric before the Supreme Court, and they are doing exactly the same here.

A look at real world evidence regarding particular facilities makes the ILECs' theories an embarrassment. As applied to deployment of copper loop facilities, including copper line-shared loops, not even the ILECs argue that leasing has deterred investment. While the ILECs claim broadly that investment in broadband facilities is especially risky, they fail to discuss with particularity the kind of investments necessary to provide DSL-capable and line-sharing loops. That investment is not risky or substantial, because DSL was designed as a technology that made use of *existing* plant. New copper facilities are deployed by the ILECs at customers' requests, or as new houses are constructed. There is no evidence on the record, nor has anyone ever argued, that such requests are denied, or that new homes are not being provided telephone service, because of loop unbundling requirements.

This argument is not advanced by labeling these transmission facilities "broadband," or by asserting that there is a risk that new *broadband* facilities construction is deterred by leasing because "investment in new broadband infrastructure is extremely risky even without unbundling requirements," and that a leasing requirement "can destroy" the business case for such investment.[87] To repeat, copper loops and copper line-shared loops are indeed part of the "broadband infrastructure," but they are not new and the investment necessary to facilitate their use for broadband services is not the least bit risky. The ILECs will build copper loops even though they can be used to provide broadband services; indeed, all copper loops are now

[86] *Id.* at 1679.

routinely deployed in ways that make it possible to use them to provide broadband services. The ILECs' loop plants are their largest assets. The work the ILECs undertake to make it possible for the loop plant to be used to deliver broadband services to compete with cable modem service is the opposite of a risky investment: it is absolutely essential investment to secure their most valuable asset.

Generally, no upgrade to the loop plant is required to make it DSL-capable. This is particularly true for lineshared loops, which are already installed and working. On occasion, loops must be upgraded by removing load coils, bridge taps and other encumbrances that make it difficult or impossible to use a copper line to carry some DSL-based signals. The cost of this investment is fully recovered by TELRIC rates, and, in any event, the ILECs benefit from this investment if the customer returns to the ILEC.

Moreover, the ILECs argument that the Commission must eliminate unbundling obligations as to "new" network construction was specifically rejected by the Supreme Court. Addressing the ILEC argument that unbundling prevented network investment, the Supreme Court concluded:

> The argument, however, rests upon a fundamentally false premise, that the TELRIC rules limit the depreciation and capital costs that ratesetting commission may recognize. In fact, TELRIC itself prescribes no fixed percentage rate as risk-adjusted capital costs and recognizes no particular useful life as a basis for calculating depreciation costs. On the contrary, the FCC committed considerable discretion to state commissions on these matters. [The FCC] treated then-current capital costs and rates of depreciation as mere starting points, to be adjusted upward if the incumbents demonstrate the need. This is, for calculating leased element rates, the Commission specifically permits more favorable allowances for costs of capital and depreciation than were generally allowed under traditional ratemaking practices.[88]

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[87] SBC Comments at 8.

[88] 122 S. Ct. at 1676-1677.

In other words, the Commission's existing unbundling and pricing rules permit the ILECs to not only recover their network investment, but to make a nice profit from it. The Commission cannot now, in the face of such unequivocal rejection of this ILEC argument by the Supreme Court, conclude that unbundling of lineshared loops somehow deters ILEC investment.

Finally, now that the Bell companies have been forced into the DSL sector by entry of competitors, their claims that they cannot compete effectively because of unbundling obligations – a red herring argument if ever there was one – are simply belied by the facts. According to the FCC's own figures, at year end 1998, before the Bells began deploying their retail DSL offerings, cable had 350,000 subscribers, whereas DSL had 25,000 – in other words, cable had 94% of broadband subscribers, and DSL had only 6%. By year-end 1999, again according to the Commission's own statistics, cable had 875,000 residential subscribers, and DSL had 115,000 – the lead had narrowed slightly to 89% cable/11% DSL.[89] By year-end 2001, ADSL lines in service totaled 2.7 million, an increase of 36% during the first half of 2001. High-speed lines in service over coaxial cable systems remained more numerous, increasing 45% to 5.2 million lines – thus, the gap had narrowed significantly by the end of last year – 66% cable to 34% DSL.[90] But by the end of the first quarter of 2002, Telechoice reported nearly *five million* DSL lines in service, reflecting the incredible success of all four Bell companies in adding DSL subscribers.[91] Given the marked *increase* in ILEC DSL versus cable since 1999, the year the FCC adopted linesharing rules, the Commission can only draw the conclusion that the existence of linesharing unbundling obligations has *increased* the Bell company incentive to deploy broadband DSL services. Moreover, the Commission can only draw the conclusion that elimination of the obligation to provide lineshared loops would serve to *decrease* ILEC incentives to deploy DSL services. The record before the Commission can lead to no other possible conclusion.

The argument that unbundling deters CLEC investment in loop facilities fares no better. No ILEC dares even suggest that CLECs would deploy loops in the absence of unbundling. And

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[89] See http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2000/ncc0040a.pdf; http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2000/ncc0040b.pdf

[90] http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2002/nrcc0201.html

if it were true that TELRIC actually incents CLECS to use ILEC facilities rather than build their own, because the costs are so low, then every single ILEC would have been immediately motivated to address nationwide markets using UNEs. Instead, they remain steadfast in their adherence to the BOC cartel, refusing to compete against one another. Covad also notes that in many instances inducing CLECs to construct their own facilities, if this were indeed possible, would be economically inefficient.[92]

In sum, requiring the leasing of line-shared loops in no way deters ILECs' or CLECs' investment in such loops.

E. DLEC Provision of DSL Through Facilities-Based Investment Creates Many Benefits for Consumers as Compared with ILEC DSL

Commenters agree that DLECs' provision of DSL through facilities-based investment also creates benefits for consumers as compared with ILEC offerings. First, experience has shown that competition from DLECs such as Covad has encouraged ILECs to provide their own, relatively reasonably priced DSL service to residential customers – a service which, though it has meant lower profits for ILECs, has come with unquestionable benefits for those consumers. Second, DLECs provide high-quality service to the other customers whom the ILECs have left behind: namely, small and medium-sized business and home office users.[93] Third, DLECs offer features and functionality not offered by the ILECs. The clear consumer benefits associated with DLEC provision of DSL, which depends on line sharing, underscores the need for continued

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[91] Report available at http://www.xdsl.com/content/resources/deployment_info.asp.

[92] Murray Decl. ¶¶ 86-92.

[93] This is true even for lineshared services. For example, Covad's TeleSOHO service is a product specifically designed for home office broadband users who want their DSL service provisioned on their voice line.

access to the high-frequency portion of the loop – a facility that would otherwise be wasted[94] – in order to effectuate the intent of Congress in passing the 1996 Act.

First, commenters agree that competition from DLECs such as Covad has been a major force in prompting ILECs to enter the DSL sector. Until competitors entered the market for high-speed access services, ILECs offered their customers only ISDN and T-1 service, which are both more expensive than DSL and are generally sold as a metered service with per-minute pricing. It was only when competitors entered the market that ILECs began to offer DSL service to their residential customers – service that is both less expensive and offered on a flat-fee basis.[95] As noted above, ILEC provision of DSL service has increased markedly since the Commission adopted its line sharing requirements and competitors began offering DSL service.

Thus, in New York City, hardly a niche market for broadband services, Verizon did not launch service until July of 1999 after both DLEC DSL and cable modem services were already available.[96] And even in cities where cable modem service was not made available as a competition spur, the Bells did not launch DSL until *after* a CLEC began offering DSL. Thus, in Washington, D.C., with no cable modem offering available, Covad announced the launch of its DSL offerings in March 1998 – and Verizon announced it was following behind with its own DSL launch in October 1998.[97] And in smaller cities, like Richmond, Virginia, Verizon began turning up service just two years ago – Covad launched service in Richmond on January 31, 2000, and Verizon announced its own launch to "some Richmond-area residents and businesses"

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[94] Although it seems obvious, it is important to recall that Covad is only entitled to purchase a lineshared loop if Covad wins the retail customer. If the ILEC wins the customer back, or wins the customer in the first instance, the ILEC is entitled to exclusive use of that lineshared loop. It is thus difficult to understand the ILEC argument that the ILEC is somehow deprived of the use of the lineshared facility.

[95] *See* WorldCom Comments, Graham Decl. ¶ 35.

[96] http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=36057&PROACTIVE_ID=cecfc8cfcfc6cccac7c5cecfcfcfc5cecfc7c6cbcfc6c6c6cdc5cf

[97] http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=36837&PROACTIVE_ID=cecfc8cfcfc6cbc

a mere one month later.[98] In short, the Bells only launch DSL at the last possible minute, when competitive pressure becomes too much for them to bear. In the words of BellSouth's CEO Duane Ackerman:

> We face a fiercely competitive marketplace, and we must continue to reduce our cost structure in order to compete . . . We must continue to deliver our products and services at competitive prices to meet the increasing demands of our customers.[99]

Thus, BellSouth makes clear that it is competition that drives efficiencies, cost reductions, and innovation – all in the name of satisfying consumer demands.

There is reason to doubt, however, that the Bells – if successful in their efforts to thwart competition by eliminating line sharing – will continue to deploy DSL. As industry analysts have long concluded, "[i]ncumbent carriers also appear to remain cautious of pushing the technology in the small business market for fears of tearing into their more lucrative high-price T-1 market."[100] Indeed, if the Commission eliminates lineshared loops, thereby eliminating Covad's ability to provide customers with affordable broadband services, the Commission will guarantee that consumers will see more of these headlines:

> "Cox Communications' high-speed Internet customers will see their rates increase by at least $5 a month beginning July 1."
>
> - TR Daily 4/1/02.

Second, DLECs offer service to segments of the market that are still ignored by ILECs. The consumer benefits associated with the ILECs' entry into the DSL sector have been limited to just one segment – residential retail customers – even though there are three other segments that

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[98] http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=37397&PROACTIVE_ID=cecfc8cfcfc6cccac7c5cecfcfcfc5cecfc7c6cbcfc6c6c6cdc5cf

[99] BellSouth Press Release, May 17, 2002, available at http://bellsouthcorp.com/proactive/newsroom/release.vtml?id=40423

[100] "Communications Technology Outlook 2002," Industry Report, Ladenburg, Thalmann and Co., Inc., March 2002, at p. 69.

benefit from high-speed access services such as DSL: small and medium-sized business, large business, and independent ISPs.[101] The ILECs' exclusive focus on residential customers leaves these other segments with an undesirable choice between either expensive ISDN or T-1 service, or foregoing high-speed access altogether. That choice is one that hits small and medium-sized businesses, as well as home office users, the hardest. While large businesses may, in some cases, prefer ISDN or T-1 service to DSL service, smaller businesses do not often need ISDN or T-1 service, nor can they profitably assume the added expense. Covad's provision of DSL service thus provides an important benefit to this group of consumers, whom the ILECs have ignored.

Third, DLEC provision of DSL through facilities-based investment not only offers *more* access to underserved customers, but provides *better* access than ILEC DSL for these and other customers. Covad, for example, offers superior service quality; a wider variety of speeds; and better security than both ILEC DSL, which uses dynamic, rather than static, addressing, and cable, which uses shared data networks, rather than the point-to-point system used by DSL networks.[102] Covad has also offered enhanced, customized service options to customers on an individual basis, including, for example, guarantees of particular speeds desired by the customers. This degree of customization is unavailable from ILEC DSL providers.

In short, Covad's service is superior because:

- Covad offers the lowest nationwide broadband prices.
- The installation experience of Covad's customers consistently ranks far above phone company retail DSL customers.
    - Covad's award winning self-install kits have most end users connected in less than 20 minutes.
    - Covad installs most ADSL orders in less than 14 days.

[101] *See id.* ¶¶ 38-42.

[102] *See* Joshi, Moyer, Richman, Zulevic Joint Decl. ¶ 14.

- Phone companies offer end users no alternatives if the consumer cannot get ADSL, whereas Covad offers numerous other "flavors" of DSL to consumers – IDSL and SDSL, for example.

    - Covad offers a lineshared product specifically targeted to home office users, whereas Bell companies push businesses onto their high-margin, high-cost T-1 services. Covad's TeleSOHO service is a line-shared service (1.5/384) with the ability to support multiple PCs and one public/fixed IP address. TeleSOHO provides broadband connectivity to enterprise customers that need to connect multiple locations or end users nationwide, businesses that have rejected T-1 as too expensive, and power residential users.

    - Covad also offers a wide variety of service packages to support customer needs. Examples include Covad's Telesurfer (608kb/128kb) and TeleSurfer Plus (1.5meg/128kb).

    - Covad's TeleSOHO service is provisioned with a fixed IP address, which facilitates hosting, videoconferencing & VPN capabilities.

The clear evidence of consumer benefits associated with DLEC provision of DSL gives the lie to the ILECs' protests that "[l]ine sharing has been a failed experiment."[103] If anything, even if it were true that Qwest and other ILECs have not yet recovered their investment in making line sharing available, primarily the development of OSS for line sharing, that would be an argument for preserving line sharing, not eliminating it. Indeed, Qwest itself states that it "does not oppose grandfathering current locations where it has already deployed line sharing capability."[104] As Qwest appears to recognize, the expansion of DLECs – which depends crucially on access to the high-frequency portion of the local loop – makes it more, rather than less, likely that ILECs will recover their investment in unbundling that portion of the loop.

In short, the DLECs' provision of DSL via facilities-based investment has both encouraged ILECs to improve the quality and price of their DSL services, and has resulted in more high-speed access options for large segments of the market that remain underserved by

[103] Qwest Comments at 44.

incumbent providers. These consumer benefits would not be possible without line sharing, and underscore the need for continued access to the high-frequency portion of the loop.

F. Line-Shared Loops Should Be Made Available On A Nationwide Basis.

As the opening comments make clear, line sharing is necessary to bring competition to broadband markets. This is true not just in some, but in all markets – a fact that strongly suggests that the line-sharing rules should be national in scope. There are no geographical, market or other differences that would warrant any other result. While the D.C. Circuit's recent *USTA* decision requires the Commission to consider the need for granularity in its unbundling rules, none of the factors it points to have any application to line sharing.

The Court was in particular concerned with market-by-market variations that should be considered in light of the fact that some services in some markets are a source of subsidy, or, conversely, subsidized. In either case, in the court's view, the Commission had to consider how the existence of such subsidies effected the extent to which competitors are impaired without access to the element used to provide the subsidizing or subsidized service.[105]

In response, the Commission needs to make clear that the existence of subsidies for some telecommunications services does not affect the impairment analysis for line shared loops. Because of the sunk nature of most telecommunications investment, competitors will not, for example, dig trenches, obtain rights-of-way and lay down copper or fiber even if in a particular location they conclude that ILEC rates are artificially high. Competitors would never make such an investment because there could be no assurance that the incumbent would not respond to the presence of competition by seeking relief from the regulators to lower their prices to respond to

[104] *Id.* at 44-45.
[105] 290 F.3d at 422-423.

this competitive pressure. Ultimately, unless competitors can provide service at costs that approach the ILECs' costs, they will not build facilities, regardless of the retail rates.

Additionally, the Commission should explain for the benefit of the reviewing court the relationship between section 254 of the Act and its treatment of implicit universal service subsidy, and section 251's unbundling rules. In the extremely unlikely event that high retail rates that resulted from a system of subsidies induced competitors to construct their own facilities, while a rate that more closely reflected cost would preclude such competition, that should not count against impairment, since Congress intended competition (including competition through leasing) to drive implicit subsidy out of the system.[106] Similarly, it should not count against impairment if retail rates are below cost in a particular area as a result of subsidies, because new entrants would be entitled to the same explicit subsidy that is available to the ILEC provider of subsidized services.

In any event, the court's concern about subsidy is irrelevant to the unbundling analysis of line-shared loops. There is no market in which the high-frequency portions of line-shared loops are part of a system of implicit subsidy, so even if the court's concern about subsidy had substance in some circumstances, it would have no applicability here.[107]

Nor are there any other reasons for considering line-sharing loops on other than a nationwide basis. As Covad described above, the Commission should consider impairment both from the point of view of a would-be intramodal competitor seeking access to the high frequency

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[106] *See generally In re Federal-State Joint Board on Universal Service*, 12 FC.C.R. 8776, ¶ 14 (1997), *aff'd*, *Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393 (5th Cir. 1999).

[107] Indeed, just last week the Federal/State Joint Board on Universal Service decided not to expand the existing universal service fund mechanisms to include advanced services, such as xDSL, within the category of telecommunications services funded by the program. The decision reinforces the obvious fact that USF programs do not impact the unbundling of facilities used in the provision of broadband services.

portion of the loop, and from the point of view of impairment of competition in general. Under either view, line-shared loops should be available on a nationwide basis.

Considering the services a wireline CLEC seeks to offer, throughout the nation there is no alternative to the ILECs' loop. While the ILEC commenters have much to say about the supposed availability of alternative elements, no one denies that under any set of assumptions in every route in the country it would be uneconomical for a competitor to deploy an additional loop. The cost is simply much too high for the return that could be expected on such an investment. This is so, regardless of the length of the loop, the terrain over or under which the loop must be lain, the retail rate structure, or any other variable. And no one has suggested that there are multiple suppliers of loops anywhere in the country. There are not. So while a more granular analysis may be called for with respect to certain elements, it would be entirely pointless to make such an inquiry about loops.

The situation is no different if the Commission shifts its focus from the requirements of the CLECs, as the statute requires, to the broader competitive context, as the D.C. Circuit has suggested. If there were locations at which there were six or more inter or intra-modal alternatives available to offer substantially the same broadband services at substantially the same rates, perhaps then the ILECs could argue that competition would not be impaired (although competitors clearly still would be) at those locations even if line-shared loops were not made available to competitors. But, as the ILECs themselves acknowledge, there are no such locations. Indeed, there are virtually no locations where even three modalities are available. Thus, there is no need at this time for the Commission to address the appropriately "granular" way to identify these theoretically competitively unimpaired locations, or to consider what weight to place on the lack of competitive impairment. For present purposes, it is enough to

conclude that without the availability of line-shared loops, competition as well as competitors will be impaired nationwide. For line-shared loops, therefore, there is no need even to permit ILECs to attempt to show that individual markets are deconcentrated. Permitting such proceedings would simply constitute a waste of resources.

III. THE COMMISSION SHOULD CONTINUE TO REQUIRE ILECS TO PROVIDE ACCESS TO LINE SPLITTING.

The arguments for line splitting are virtually identical to the arguments for line sharing. Whether the ILEC itself provides the voice service (as in a line sharing arrangement), or a competitive voice provider provides the service (as in line splitting), carriers like Covad that wish to provide only Internet access or other broadband services need access to the high-frequency portion of the loop. Without line splitting and line sharing, carriers that wish to offer only broadband services (and not voice services) would be kept out of the broadband market, and only carriers that choose to offer both voice and data would be able to compete. No competitive purpose would be furthered by such a tying rule.

None of the ILECs make arguments that are directed uniquely against line splitting. Thus, the discussion in the previous section addressing the ILECs' arguments against line sharing fully apply to arguments against line splitting. The principal distinction between the two services is a technical one: line splitting requires a cross-connect between the data and voice CLEC collocation cages, while line sharing does not. As to that, the D.C. Circuit just recently affirmed this Commission's rule requiring ILECs to install these cross-connects pursuant to both section 201(a) of the Act or as a "term and condition" of collocation permitted by section 251(c)(6).[108] And any claims that line splitting imposes unreasonable costs on the ILECs are

[108] *Verizon Tel Co. v. FCC*, No. 01-1371, __ F.3d __, 2002 WL 1310605 (D.C. Cir. June 18, 2002).

entirely without merit, as the ILECs are entitled to charge CLECs for the cost of installing cross connects.

IV. THE COMMISSION SHOULD CLARIFY THAT ACCESS TO DSL-CAPABLE LOOPS INCLUDES ACCESS TO HYBRID FIBER/COPPER LOOPS.

A. CLECs Are Impaired Without Access to Hybrid Fiber/Copper Loop Facilities.

Some of the ILECs have suggested that CLECs are not impaired without access to fiber-fed loop facilities used to provide broadband services.[109] If they mean to suggest that CLECs are not impaired without access to the fiber feeder portion of the loop, and that where ILECs use hybrid fiber/copper loops CLECs should be given access only to the copper distribution sub-loop element, the Commission should reject this argument out of hand.

To begin, the ILECs are incorrect when they argue that the CLECs are in as good a position as the ILECs to deploy new fiber feeder facilities. While the ILECs assert repeatedly that, when it comes to new fiber facilities, they are identically situated to the CLECs, this is as false with regard to fiber feed as it is with regard to copper feed. ILECs own the rights of way from their central offices to the copper distribution network. The CLECs do not. ILECs own the poles, ducts, or conduits over those rights of way. The CLECs do not. And the ILECs have the customer base that gives them the scale economies that allows them to construct fiber loop facilities. The CLECs do not. When the ILECs expand and upgrade their network by deploying new fiber facilities, they are not acting as new entrants.[110] The SBC/Verizon argument that construction of fiber-feeder creates an overlay network does not change these economies.[111] It is

[109] *See SBC Comments* at 46.

[110] Murray Decl. ¶¶ 106-07.

[111] SBC Comments at 61, Verizon Comments at 90.

also wrong. One of the primary goals the ILECs have had in deploying fiber-feeder is to replace copper feeder and thereby substantially reduce their maintenance costs.[112]

Equally to the point, even if the CLECs and the ILECs deploying fiber feeder had identical costs, it would be extraordinarily expensive for CLECs to collocate facilities at ILEC remote terminals to connect that fiber feeder to the ILECs' copper distribution network. Because remote terminals by their nature serve relatively few customers, the collocation and equipment costs of a competitor who can expect only a small share of these few customers are impossible to recover over any realistic anticipated customer base.[113] Indeed, at least in the residential and small business markets, the further shared telephone equipment is deployed out towards the curb, the more it is in *all* carriers' interests that the equipment be shared by all carriers as well as by all customers. As the comments of Covad, AT&T, WorldCom and others make clear, the only sensible rule embodies the fact that a loop is a loop, and if CLECs are impaired without access to the loop, that is so whether it is a home-run copper loop or a hybrid fiber/copper loop. The provisioning of broadband service is not differentiated based on the type of loop over which customers are served.[114]

Finally, SBC (which has fought to make unbundling of fiber-fed loops impossible) makes the perverse argument that "CLECs are not even availing themselves of such access" where SBC has made Pronto available as a UNE.[115] The simple explanation for that is that SBC has priced such access at a rate higher than the retail broadband services it offers, effectively price squeezing competitive carriers out of the market.

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[112] Murray Decl. ¶ 111.
[113] Murray Decl. ¶ 75.
[114] Murray Decl. ¶ 73.
[115] SBC Comments at 15.

B. Unbundling Fiber Facilities Needed To Provide DSL Will Not Deter ILEC Investment.

The ILECs' claims that unbundling deters investment focuses on higher capacity loop facilities, whether they be hybrid fiber/copper loops, or fiber-to-the-curb applications. Their claim is that they are not deploying these facilities (or not deploying them as quickly as they otherwise would) because they are being required to unbundle these facilities as soon as they are deployed. These claims entirely lack merit.

The ILECs focus much of their attention on investments in fiber-fed digital loop carrier systems that reduce the length of copper in the loop, and so make it possible to use certain kinds of DSL technology, or use it more efficiently. As Covad made clear in its opening comments, Covad seeks access to these DLC loops at the ILECs' central offices, not at remote terminals, just as it seeks access at the central office to any other loop. Providing such access does not raise the ILECs cost of installing or operating those loops, and, again, none of the ILECs claim that providing such access has ever led them to decline to upgrade their loop plant using DLC. Indeed, in other contexts the ILECs have repeatedly stressed that these DLC loops, where they have been installed, are far more efficient to own and operate than the "home run" copper loops they replace. The claim that such upgrades to make existing loop plant more efficient to operate is a highly speculative investment, or that providing competitors access to these DLC loops would lead the ILECs not to deploy them, is pure ILEC rhetoric.

The ILECs' claims that unbundling deters deployment of broadband facilities in the end involves only two discrete situations that support no such general claim. First, SBC in particular claims that state commission decisions to require CLEC access to remote terminal equipment raises ILEC costs, since this equipment was designed in a monopoly environment to handle the requests of only one carrier, and would need to be substantially altered to work in a multi-carrier

environment. Covad urges the Commission to view this claim with great skepticism: the equipment involved was designed after the passage of the 1996 Act, and there is no reason to credit SBC's claims that it cannot operate in a multi-carrier environment.[116]

But whatever the Commission makes of this claim, it has nothing to do with Covad's request that it be given access to DLC loops at the central office. Covad does not seek access at remote terminals, and if such access really were as costly as SBC suggests, that would simply provide further support for Covad's request that access be provided at the central office, where no added costs would be incurred. Discrete problems involved in the modification of remote terminal equipment – if there are any – cannot be generalized to support a claim that deployment of new broadband equipment is especially risky, or that unbundling of broadband facilities generally would discourage ILEC investment in such facilities. Indeed, SBC previously explained that its decision to invest in Project Pronto was justified by the benefits for existing loop plant.[117]

In any event, any argument that unbundling requirements somehow inhibit modification or deployment of remote terminals is belied by the facts. The Commission should look to what the Bells tell Wall Street – where there are severe and growing penalties for not telling the truth – for an accurate picture of what competition is really doing to their broadband deployment:

BellSouth has informed Wall Street that :

- "BellSouth's broadband success is largely due to our customer service and focused execution of the most aggressive DSL deployment strategy in the industry. In 2001, Bellsouth increased its coverage from 45% to 70% of households in the markets BellSouth serves – covering 15.5 million lines. Our industry leading coverage is a result of BellSouth's targeted market-driven

[116] Murray Decl. ¶¶ 93-107 (refuting SBC claims regarding Project Pronto).
[117] Murray Decl. ¶¶ 103-04.

deployment of DSL in more than 1,000 central offices and 8,700 remote terminals – more RTs than any other DSL provider."[118]

- "The key to deploying broadband efficiently is to upgrade the network facilities, called remote terminals, that serve areas with high propensity to buy scores. This is a good example of BellSouth's pragmatic, demand based capital deployment."[119]

- "As broadband penetration increases, DSL's speed, by itself, will facilitate the adoption of a host of new online applications and services, creating the "virtuous cycle" that often has characterized the history of investment in breakthrough technologies."[120]

- "We have continuously updated our network with new advances in digital technology. For over a decade, fiber optics has been our choice of technology as we have upgraded our core network to meet the demand for data, and over 90% of our customers are within 12,000 feet of fiber optic cables."[121]

Verizon has similarly explained to Wall Street that:

- By the end of 2001, Verizon had deployed DSL to 79% of its access lines.[122]

And SBC has noted that:

- SBC finished 2001 with over 5000 RTs in service, up from 2000 at the beginning of 2001.[123]
- By the end of 2001, SBC's DSL network reached 25 million customer locations, up 37% from the year before.

There is no question but that the Bells are deploying DSL at an incredible pace.

BellSouth provided perhaps the best summary in a recent Wall Street presentation:

> DSL customers grew 141 percent in the past year to 729,000 -- the fastest percent growth of any DSL or cable modem provider in the country. BellSouth's broadband success is

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[118] BellSouth 4Q01 Investor News at 3, available at http://bellsouth.com/investor/pdf/1q02p_news.pdf

[119] *Id.* at 11.

[120] BellSouth 2001 Annual Report to Shareholders at 6, [120] available at http://bellsouth.com/investor/pdf/4q01p_news.pdf

[121] BellSouth 2001 10K at 7, available at http://investor.bellsouth.com/ireye/ir_site.zhtml?ticker=BLS&item_id='reports.htm'&script=11905

[122] Verizon 4Q-01 Earnings Release at 4, available at http://investor.verizon.com/annual/VZ/4Q2001/4Q01Bulletin.pdf.

[123] SBC 4Q 2001 Investor Briefing at 5, available at http://www.sbc.com/Investor/Financial/Earning_Info/docs/4Q_IB_FINAL_COLOR.pdf; *see also* SBC 2001 10-K report, available at http://www.sbc.com/investor_relations/company_reports_and_sec_filings/2001_AR.pdf.

> largely due to its focus on superior customer service and targeted DSL deployment strategy. The company's industry leading coverage is a result of targeted, market-driven deployment of DSL to more than 1,100 central offices and over 9,000 remote terminals.[124]

In other words, while out of one side of its mouth (the side apparently not subject to serious fines or jail time) BellSouth tells the FCC that unbundling is handicapping its broadband deployment, out of the other side of its mouth (the side that is subject to such penalties), BellSouth tells Wall Street that its DSL deployment eclipsed *all other broadband providers – including both cable companies and wireline companies*. Unbundling requirements simply are not deterring the modification of remote terminals needed to provide DSL.

The ILECs' second claim is that their plans to deploy fiber all the way from the central office to the home have been abandoned or delayed because of promiscuous unbundling requirements. Once again, these ILEC claims are unsupportable: there is no reason to believe that the ILECs' failure to make such investment has anything to do with unbundling rules. Notwithstanding, on behalf of the Bell companies, Corning claims that the "biggest obstacles to faster deployment of fiber-to-the-home are the unbundling and wholesale resale pricing rules that currently apply to these (and other) network elements."[125] It further argues that "ILECs are constrained from rolling out fiber to the home because the unbundling and resale rules prevent them from realizing the full economic benefit of these systems."[126] It even paid for a consulting firm study, which concluded, "it would be economically rational for ILECs to overbuild fiber to the home to about 31 percent of the homes in the United States" but for unbundling.[127]

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[124] BellSouth Press Release, January 3, 2002, available at http://bellsouthcorp.com/proactive/newsroom/release.vtml?id=38723.

[125] Corning Comments at 3.

[126] Corning Comments at 3.

[127] Corning Comments at 7.

The conclusions of Corning's study are contrary to fact. Thus, Corning predicts that *even with existing unbundling regulation in place*, "one percent of the wire centers in the United States [five percent of the nation's households[128]] would profitably be served by fiber to the home technology.[129] Yet according to Corning, only 400 homes in the U.S. today have FTTH built by ILECs – even though Corning's own study revealed that 5% of the nation should have FTTH.[130] There is no reason to believe that Corning's predictions about fiber to the home deployment absent unbundling would be any more accurate than its predictions about such deployment in the presence of unbundling. Indeed, given Corning's claims that FTTH systems "are available and are being deployed today, for costs similar to or less than laying new copper plant,"[131] it is impossible to understand why such fiber has not been deployed ubiquitously whether or not there are unbundling rules.

Finally, Corning falsely claims that "[i]ncumbent carriers have no cost or network leveraging advantage when it comes to deploying fiber to the home."[132] Corning goes even further, claiming that "to the extent ILECs enjoy a labor cost advantage over ILECs, the construction cost to CLECs may be less than to ILECs."[133] Corning is flat wrong. The legacy monopoly advantages that the ILECs enjoy in their loop plant include such impossible-to-duplicate tangibles and intangibles as rights-of-way, poles, ducts, conduits, existing copper plant, existing remote terminals, and central offices. In other words, the fact that an ILEC is installing a piece of glass to replace part of a copper loop does not magically eliminate all the bottleneck facilities that the ILEC possesses in that loop plant. Corning's claim that CLECs are not

[128] Corning Comments at 6.
[129] Corning Comments at 7-8.
[130] Corning Comments at 4.
[131] Corning Comments at 13.
[132] Corning Comments at 19.

impaired in the absence of fiber loop access is based on the faulty premise that the existence of a bottleneck facility depends on what material the facility is made of.

The truth of the matter is that while investment in fiber to the curb deployment would in fact entail more risk than investment in copper facilities, the Commission's TELRIC rules call for a risk-adjusted rate of return, and if the ILECs actually had been deterred from deploying these fiber loops because of concerns that the lease price did not adequately take account of the riskiness of their investment, they had every right to approach the states and seek a higher rate of return for this particular investment on the ground that it was particularly risky. To our knowledge no ILEC has ever made such a specific request, no doubt because they never had any serious concern that leasing requirements were impeding their deployment of these fiber facilities. Their claims that leasing has deterred such investment is just more rhetoric.

In any event, the Supreme Court has now definitively concluded that TELRIC appropriately compensates the ILECs for risky investments. The economic foundation for the ILECs' arguments about investment has thus been definitively rejected. Obviously if the ILECs recover all of their costs of providing facilities on a wholesale basis, including returns fully commensurate with the risks they undertake, leasing would not deter ILEC investment. To the contrary, by keeping retail customers on ILEC network facilities, and by stimulating demand by increasing competition, leasing at fully compensatory rates ought to promote ILEC facilities investment.[134]

That being so, the ILECs arguments about leasing and deployment always at bottom have been arguments that the FCC's TELRIC rules do not fairly compensate ILECs for the facilities

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[133] Corning Comments at 24.

[134] Each time that Covad turns up service to a new customer, Covad pays the ILEC a monthly fee for use of that customer's loop. It is difficult to understand why the ILECs would eschew the wholesale market opportunity and

they are required to lease. The Supreme Court has now conclusively rejected these arguments. It has found to the contrary that TELRIC rates fully compensate the ILECs for their actual network costs, and do not, as the ILECs' argue "assume a perfectly efficient wholesale market or one that is likely to resemble perfection in any foreseeable future."[135] And "TELRIC rates leave plenty of room for differences in the appropriate depreciation rates and risk-adjusted capital costs depending on the nature and technology of the specific element to be priced."[136] The ILEC arguments about investment that are little more than indirect attacks on TELRIC should now be put to rest.

V. THE COMMISSION SHOULD CONTINUE TO REQUIRE UNBUNDLING OF DS-1 LOOPS.

As it explained in its Opening Comments, Covad uses DS-1 loops to provide data services to telecommuters and small and medium-sized businesses nationwide, and for the first time has given such users access to affordable broadband services.[137] Although Covad only began providing service via DS-1 recently,[138] DS-1s have already proven crucial to Covad's business. As Covad explained in its Opening Comments, DSL loops are not a substitute for DS-1 loops. Indeed, most of Covad's DS-1 customers are customers who sought to obtain SDSL service first because of its lower cost, but were forced to turn to DS-1 service either because they are either located more than 8,000 feet from the serving central office or because they are not

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give up payment for facilities that would otherwise remain idle and generate no revenue whatsoever. Unless, of course, the ILECs are simply seeking to eliminate competition.

[135] *Verizon*, 122 S. Ct. at 1669.

[136] *Id.* at 1678.

[137] Covad Comments at 47.

[138] It is interesting that the ILECs note the relative low volume of CLEC DS-1 loop orders, given that the ILECs are directly responsible for that low volume. For example, Covad's DS-1 deployment has been severely hampered by the policies of Verizon, which deny Covad access to DS-1 loops that do not have attached electronics already in place. Covad is the process of pursuing enforcement action against Verizon for its violation of the Act and the Commission's rules.

served by copper loops at all.[139] All available evidence strongly indicates that DLEC provision of DS-1 services will only increase in the future. As with DS-0 loops, competitors have no viable alternative to leasing DS-1 loops anywhere in the country. The same sunk costs that make deployment of DS-O loops prohibitively expensive also preclude deployment of DS-1 loops.[140]

The ILECs once again attempt to counter these economic facts with the "UNE Fact Report." In their report, the ILEC attorneys claim that CLECs serve 28% of the nation's business lines, and thus loop unbundling is no longer necessary.[141] But according to the FCC (a better source of accurate statistics), CLECs provide service to 17.3 million (or 9.0%) of the approximately 192 million nationwide switched access lines in service at the end of June 2001. Again according to the Commission, about 55% of reported CLEC switched access lines served medium and large business, institutional, and government customers.[142] Thus, CLECs serve fewer than 9 million business lines nationwide – hardly the 28% market share that the ILEC cartel claims. Second, it is perverse to claim that the fact that ILECs are losing access lines to competitors means that loop unbundling is no longer necessary.[143] To the contrary, it shows that leasing rights have not deterred CLECs from constructing their own facilities when it is economical for them to do so. And given the FCC's own conclusion that ILECs garnered 91% of all local exchange revenue last year, leaving 6% for CLECs and 3% for other carriers,[144] competition of any kind obviously still has a way to go before taking hold.

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[139] *Id.* at 47-48.

[140] DS-1 loops are generally provisioned via two twisted copper pairs.

[141] ILEC "Fact" Report at IV-2.

[142] Local Competition Report, Feb. 2002, at 1, available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/lcom0202.pdf

[143] ILEC "Fact" Report at IV-8

[144] FCC Local Competition Report at Table 14.

More important, the ILEC argument that CLECs have been able to self-provision high-capacity loops to "certain large business customers" applies only at the OC- level, not at the DS-1 level, as the ILECs' own "Fact Report" shows. [145] Thus, the ILEC argument is simply irrelevant to the continued need for unbundling of DS-1 loops.

SBC asserts that the last five years "have witnessed the rise of a phalanx of aggressive, well-funded facilities-based competitors that are deploying switches, and constructing fiber, copper, coaxial cable, and wireless networks to carry customer traffic."[146] But SBC offers not even a single example of what aggressive, well-funded carriers SBC thinks are out there duplicating the ILEC loop plant – especially for DS-1 or DS-0 loops. That is no doubt because there aren't any. SBC goes on to claim that "CLECs are purchasing very few" high-cap loops, which is a "strong indication that CLECs are able to serve the vast majority of their high-capacity customers with their own high-capacity facilities."[147] But the fact that CLECs have been forced to rely on ILEC access services as a substitute for UNEs because the ILECs have unlawfully denied CLEC access to high capacity loops hardly support further restrictions on leasing.[148]

In any event, what this Commission said in its *UNE Remand Order* remains true today: those instances of self-provisioning to certain large business customers indicate only that DLECs are "unimpaired in their ability to serve those particular customers."[149] Contrary to the ILECs'

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[145] Although ILECs seem to focus their arguments on OCn-level of "high-cap" loops, Covad assumes that the ILECs, in the face of mounting T-1 competition, would like to see DS-1 loop unbundling eliminated as well.

[146] SBC Comments at 10.

[147] ILEC "Fact" Report at IV-6.

[148] *See, e.g.* Letter dated July 16, 2002, from Praveen Goyal, Senior Counsel, Covad, to Alexander Starr, Chief, Market Disputes Resolution Division, Enforcement Bureau, FCC (seeking enforcement action against Verizon for unlawful denial of DS-1 loops to Covad).

[149] *UNE Remand Order* ¶ 184.

suggestions,[150] limiting the unbundling of high-capacity loops would result in a dramatic decline in DLECs' ability to serve even core urban areas. Even in these limited areas in which DLECs have been able to begin to build fiber networks, there are still tens of thousands of buildings that DLECs cannot reach via use of their own facilities. Limiting the unbundling of high-capacity loops on a geographic basis would eliminate DLECs' ability to provide service to large numbers of customers who, though within striking distance of DLECs' nascent facilities, cannot yet be reached. In addition, it would render it impossible for DLECs like Covad to market nationwide services to companies, like Starbucks or similar retail outlets, who want a single national broadband provider – where no ILEC has chosen to offer that capability. Thus, Covad must have access to loops on a nationwide basis in order to provision service to national retail customers, as well as its wholesale channel of hundreds of ISPs who offer nationwide service.

Finally, application of the *Merger Guidelines* makes clear the need for continued unbundling of DS-1 loops. As with DS-0 loops there are no, or almost no competitors other than the ILEC offering wholesale (or retail) provision of loops. As with DS-0 loops, extremely high sunk costs mean there are no uncommitted entrants. And as with DS-0 loops, there are no committed entrants likely to enter in two years if ILECs were permitted to and did charge above-cost rates for leasing loops. This is apparent from the lack of entry in the years when ILECs did charge such rates.

In its comments, SBC acknowledges that DS-1 loops should be unbundled as a general matter, but proposes eliminating the ILECs' unbundling requirements in wire centers with two or more fiber-based collocators, wire centers serving 15,000 or more business lines, and wire

[150] *See UNE Fact Report* at IV-6 to IV-7,

centers with $150,000 or more per month in special access revenues.[151] Although Covad applauds SBC's willingness to unbundle DS-1 loops, SBC's offered limitations are utterly unsupported. First, the SBC proposal would mean elimination of DS-1 loop access even where no alternatives to ILEC facilities currently exist. (SBC claims that "high-capacity loops are just extensions of the existing fiber network," which is not true for DS-1 loops, which are generally provisioned over 2-wire copper loops). [152] Second, none of the ILECs, including SBC, provide any evidence that DLECs could economically provide DS-1s via their own facilities simply because these preconditions have been met. As the ILECs' own evidence indicates, competitors have deployed their own facilities where it is economically feasible to do so. Where they have not done so – essentially everywhere for DS-1 loops – there is every reason to conclude they are currently unable to do so economically. Third, it makes little sense to eliminate unbundling requirements in wire centers with two or more fiber-based collocators. The mere presence of multiple fiber-based collocators does not indicate that competitive networks serve any more than a limited number of buildings in the area, much less the wire center's entire service area. Moreover, even if the competitive networks did serve the entire area, the fact remains that two competitors would convert the RBOCs' monopoly into an oligopoly, not a competitive marketplace. Particularly in light of the constant threat that one or more competitors may not be able to stay in business, an oligopoly is unlikely to solve the problems associated with the RBOCs' dominance. An oligopoly would not drive prices to competitive levels, produce higher-quality service, or, indeed confer any substantial benefit on DS-1 customers. Again Covad reiterates that under the *Merger Guidelines*, even 10 competitors is not always sufficient to create a competitive market.

[151] SBC Comments at 101.

VI. THE COMMISSION SHOULD CONTINUE TO REQUIRE UNBUNDLING OF DEDICATED TRANSPORT

A. LECs Are Impaired Without Access To ILEC Inter-Office Transmission Facilities.

The Commission has defined interoffice transport as transport between LEC offices. Covad uses interoffice transport to connect its network of collocated facilities. Without access to inter-office dedicated transport, competitors such as Covad would have no means of carrying data traffic to their packet switches. But contrary to the "Fact Report's" claim, ILEC central offices are connected to one another almost exclusively by ILEC facilities, not competitive offerings. On only a very few routes are there any alternatives. Transport must therefore be on the national list of UNEs. Because the relevant markets for transport are individual routes, ILECs could only support the elimination of unbundling along particular routes based on the HHI index that Covad described above – and the ILECs have utterly failed to support that evidentiary burden in this proceeding. It will rarely if ever be the case that ILECs can show that the market for transport on any of these routes is not highly concentrated.

As Covad explained in its Opening Comments, it has designed an efficient network architecture in which its data traffic is routed from ILEC end offices to ATM equipment that is located at other ILEC offices. For that architecture to work, Covad must be able efficiently to transport traffic from the many end offices at which it is collocated to the ATM equipment. Yet even in the most densely populated cities – Chicago, New York, San Francisco and Washington, D.C. – the ILEC provides the only transport available to Covad in the majority of the offices in which Covad is collocated.[153] As Covad expands its collocations to include wire centers in

[152] SBC Comments at 101.

[153] Shipley/Chang Declaration ¶ 18 & Table 1.

somewhat less densely populated locations, transport from sources other than the ILECs will be even less available.[154] Other carriers similarly note their dependence on ILEC transport.[155]

The ILECs rely on their UNE "Fact Report" to support their claim that interoffice transport need no longer be unbundled because of the availability of competitive fiber alternatives. The "Fact Report" supports its argument by claiming that there is one competitive fiber provider collocated in 12% of Verizon COs, 13% of SBC COs, 19% of BellSouth COs, and 13% of Qwest COs.[156] Conversely, in 88% of Verizon COs, 87% of SBC COs, 81% of BellSouth COs, and 87% of Qwest COs, there is *not a single alternative fiber provider*. Moreover, only 4% of BOC wire centers include fiber built by three or more CLECs.[157] Thus, even where the BOC is not the only supplier of transport, oligopoly generally persists. The result is that alternative suppliers of transport generally price that transport far above cost.[158]

Covad collocates in most, if not all, of the central offices within the MSAs in which it offers service. In Baltimore/Washington, for example, Covad is collocated in well over 100 central offices, and if 13% of Verizon's COs have one competitive fiber provider, that would mean Covad could lease fiber from a CLEC in less than a dozen COs. (And that assumes that the CLEC fiber actually connects Verizon's central offices to one another, which it generally does not.) The lack of access to UNE interoffice transport would mean that, in Baltimore/Washington, Covad would have to reduce its network size by 90%.

Putting this in context for Covad's national footprint of nearly 2000 central offices, based on the ILEC UNE "Fact" Report's findings, Covad would have competitive fiber available in

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[154] Covad has announced plans this year to expand its network footprint significantly, by upwards of 100 central offices.

[155] *See, e.g.*, Allegiance Comments at 28-30; Sprint Comments at 44-45; AT&T Comments at 134-40.

[156] ILEC UNE "Fact" Report" at III-2.

[157] ILEC UNE Fact Report at III-2, Table 1.

only about 10% of its COs. Thus, if the Commission were to eliminate interoffice transport as a UNE, Covad would have to reduce its entire nationwide broadband network by nearly 90% – down to about 212 central offices. Could that be the intent of the Act? And, if Covad wished to rely on more than one competitive supplier, the numbers are even more extreme.

On closer inspection, moreover, the "Fact Report" suggests there is far less competitive transport available even than that. The report states that its figures for CLEC fiber "may include some networks or parts of networks that CLECs operate with facilities leased from a third party, including an ILEC."[159] This concession renders the fiber calculation worthless – for all it appears there may be zero CLEC networks that exist without ILEC UNEs. The Report's claim that "alternative wholesale suppliers" may be offering interoffice transport,[160] thus appears to be nothing more than rhetoric. The Report does not cite a single example of a CO connected to another CO with wholesale suppliers. This lack of proof powerfully suggests that there is no such wholesale supplier to be found.

These are hardly the only problems with the "facts" published in the "Fact Report." Additionally, the material collected is not sufficiently granular to be of any use to the Commission in analyzing the need to unbundle inter-office facilities. Identifying collocation sites at a specific central office says nothing at all about whether competitive transmission facilities are available running from that office to another office. It is just as likely that the collocation is being used to run fiber from that central office to a large downtown office building, or to an IXC's point of presence. Indeed, the "Fact Report" concedes that the competitive transport services it claims have been around since 1985 "involved the provision of

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[158] Shipley/Chang Declaration ¶¶ 19-22 & Table 2; Joint Decl. ¶44.

[159] ILEC UNE"Fact" Report at III-7 n. 34.

[160] ILEC UNE "Fact" Report at III-9 and n. 49.

"access" between large business customers and interexchange carriers"[161] and not CO to CO.[162] That being the case, it is more likely that the fiber of a collocated CLEC in fact connects to large businesses or to IXCs, and not to other central offices.[163]

Moreover, it is not clear whether the fiber facilities available in these small number of central offices is actually in service. Did, for example, the ILEC "Fact Report" count fiber owned by Metromedia Fiber Networks (MFN), which filed for bankruptcy on May 20, 2002, after the "Fact Report" was published? What is that single collocated fiber provider is MFN?[164]

Finally, the ILEC UNE "Fact Report" claims that "the ILEC wire center is no longer the only – or even the principal – point of traffic concentration."[165] As to unbundled loops, this is patently false. Loops terminate in COs, Covad needs to be collocated in those COs, and thus Covad needs to purchase UNE transport to connect to those COs.[166]

In sum, from the Fact Report one cannot determine the amount of CLEC fiber, or where that fiber is located, since the Report counts ILEC fiber leased to CLECs as "CLEC fiber." And the identification of CLEC collocations says nothing about the availability of fiber on point-to-

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[161] ILEC UNE "Fact" Report at III-7.

[162] While it may be true, as Verizon suggests, that CLECs do not *always* need direct connections from one wire center to another, it is equally true that the fact that a CLEC can get traffic from point A to point B says nothing about whether the CLEC can get traffic to point C. Additionally, the cost of transport may become excessive if a CLEC must route traffic in a far less direct way than is necessary. Thus, if Covad were forced to direct traffic to a wholesaler's POP and then find a way to direct it back to the ILEC central office where Covad's ATM is located, the costs frequently would be excessive even if there were a way of transporting the traffic at all.

[163] Murray Decl. ¶¶ 79-82. Thus SBC's claim that CLECs have deployed at least 184,000 route miles of fiber, is far too general to be of any use to the Commission. SBC Comments at 85. Leaving aside the 33.5 million kilometers of fiber deployed by the ILECs, *see* FCC Statistics of Communications Common Carrier Report, available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/SOCC/00socc.pdf, at p.27, SBC provides no information about where that fiber is going. It does not cite a single example of an actual point-to-point, interoffice route that has fully competitive fiber deployed and actually available to CLECs.

[164] Murray Decl. ¶ 81 (suggesting 30% of allocation owned by bankrupt CLECs).

[165] ILEC UNE "Fact" Report at III-4.

[166] The same arguments apply to the BOCs' claim that CLECs can easily build transport to offices with 5,000 business lines. UNE Fact Report at III-3, Table 3. The BOCs own data shows that CLECs have only built fiber to 48% of the offices with 5,000 or more business lines and presumably most of the offices where such fiber has been

point routes, which is the only relevant inquiry for any impairment analysis. While there is no doubt some competitive fiber in some locations, nothing in the Fact Report enables the Commission to figure out where that fiber is. All evidence suggests virtually none of it is on the point-to-point inter-office routes that Covad makes use of in its network.

Nor can Covad simply construct its own transport network as a substitute for access to ILEC dedicated transport. As with construction of loops, the ILECs had substantial regulatory assistance in construction of their transport networks. When the ILECs initially constructed their plant, they were guaranteed a particular rate of return and often provided eminent domain powers. Construction of transport is subject to the same high fixed/sunk costs as is the loop plant, including use of poles, ducts and conduit and payment for rights of way. A competitor constructing transport facilities on a particular route would have to incur those same costs regardless of how much traffic it carries.

While CLECs have managed to gain a sufficient customer base to overcome economies of scale on a small number of transport routes (generally to large, urban center office buildings), on most routes there is not sufficient traffic to justify deployment of additional transport facilities, rather than use of ILEC facilities for which the fixed costs have already been paid. Construction would also be economically inefficient, as the ILECs have spare capacity in their transport networks that should be used before construction of alternative networks (it is interesting that no ILEC claims exhaustion of available ILEC facilities as grounds to eliminate UNE transport). The present financial troubles of many telecommunications carriers stem from the fact that too much fiber cable already has been laid on long haul routes. An unbundling regime should not attempt to force CLECs to deploy additional transport facilities by providing

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laid are the very largest of these offices. *Id*. Where fiber has been laid, it often will not enable Covad to route traffic to its ATM equipment.

this as the only alternative to withdrawal from the market. Assuming CLECs remain in the market, duplicative deployment would not benefit the ILECs who are better off with the greater use of their transport facilities than use of facilities of alternative suppliers. The reason the ILECs nonetheless argue against unbundling is that they understand that without access to ILEC transport, CLECs would withdraw from the market altogether rather than attempting to deploy their own facilities.

Certainly, Covad could not construct the ubiquitous transport network that would be needed to support its DSL customers. Covad is collocated in nearly 2,000 central offices, and is in the process of expanding its network. Covad must have ubiquitous coverage in the markets it enters for its mass marketing and OSS development to make economic sense. Thus, for Covad to replace the dedicated transport on which it presently relies with its own transport would require construction of a massive duplicative transport network. Such an undertaking is unthinkable at a time when the capital spigots have been turned off.[167] Such an undertaking would also take years both because of the existing capital limitations and the time needed to obtain access to rights of way and lay the fiber. Covad cannot afford to wait years to have a means of continuing to serve its existing customer base and to expand that base. It is nonsensical to rely on deployment of CLEC transport on some routes as evidence that CLECs are not impaired on other routes, as Verizon suggests.[168]

Unsurprisingly, BOC proposals based on their useless "Fact Report" lack all factual foundation. SBC proposes elimination of dedicated transport at wire centers (1) with two or more fiber-based collocations, (2) with at least 15,000 business lines, or 93) that generate

[167] Shipley/Chang Declaration, ¶¶ 6-7; Joint Declaration, ¶ 45.
[168] Verizon Comments at 109.

$150,000 or more in monthly special access revenues.[169] But, to repeat the important inquiry is not whether a fiber CLEC is collocated, but rather where the fiber actually goes.

SBC goes further, arguing that the Commission must not only eliminate unbundling where a fiber provider has collocated, but also "where they could do so economically."[170] SBC defines this as "wire centers with a significant number of business lines and significant amount of special access revenue."[171] SBC thus proposes elimination of transport even where there is no fiber at a central office, much less along a particular route. Qwest's price cap proposal would do this to an even greater extent.[172] But Covad's needs have nothing to do with special access services, and the existence of wire centers that may have many lines running to large businesses says nothing about the inter-office connections upon which Covad depends. Moreover, neither Qwest nor SBC present any evidence that comes close to showing that at offices of a specific size, sufficient competitors are likely to enter within two years to render the market non-concentrated, even setting aside the fact that the relevant markets are actually individual routes.

The ILECs' own evidence demonstrates that competitors have deployed their own transport where it is economically feasible to do so. Where such alternatives do not exist, therefore, the market evidence strongly suggests that it is not economically feasible to deploy such alternatives. If in the future sufficient alternatives to ILEC transport do develop on routes where they do not exist today, unbundling requirements might then be eliminated on those routes. The evidence in this proceeding, however, demonstrates conclusively that such is not the case today.

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[169] SBC Comments at 88-9.

[170] SBC Comments at 90.

[171] SBC Comments at 90.

[172] It also has already been rejected by the Commission. Qwest Comments at 35-39; *Line Sharing Order*, ¶ 341 n.673.

As for SBC's proposal to eliminate unbundling of dedicated transport at wire centers with two or more fiber-based collocations, even if that standard were applied to point-to-point routes, the fact is that two competitors are insufficient to eliminate the dangers of oligopoly. This is particularly true in today's environment where there is a constant danger that one or more of the current providers will soon be out of business.

Where the HHI index shows that provision of transport is not concentrated, however, the dangers of oligopoly do not exist and dedicated transport potentially could be eliminated.[173] But the ILECs must make such a showing route by route as the existence of alternatives on one particular route does competitors little good when they seek to direct traffic along a different route. Because there are relatively few if any routes where six alternatives exist, it is doubtful that the ILECs will be able to make such a showing. As Covad noted before, any market with fewer than six alternatives is highly concentrated.

B. Unbundling Transport Services Will Not Deter ILEC Investment.

Even where there is no fiber today, SBC says that the FCC must immediately eliminate unbundling of interoffice transport, because otherwise "CLECs would have no incentive to build facilities in those wire centers and risk losing access to UNEs."[174] SBC even goes so far as to claim that "[e]ven if the Commission were to conclude that CLECs might be impaired in markets where alternative facilities do not yet exist, it should decline to require unbundling."[175] Clearly, no unbundling is socially acceptable to SBC. In SBC's view, the Commission should not unbundle facilities where there are actual alternative facilities available, where there might be facilities, or where there are no such facilities and never will be. In short, there appears no

[173] Murray Declaration ¶¶ 91.
[174] SBC Comments at 92 n.117.
[175] SBC Comments at 94.

situation in which SBC believes unbundling is called for, since it will always discourage the construction of new transmission facilities. The Commission cannot subscribe to this untenable view of the 1996 Act.

The ILEC claim that unbundling deters investment is at its very weakest when considering transport facilities. Since the Commission's unbundling rules have been in effect, there has been an explosion of investment in transport facilities by the ILECs. The ILEC argument is not advanced by labeling these transmission facilities "broadband," or by asserting that there is a risk that new *broadband* transmission facilities construction is deterred by leasing. All transmission facilities are capable of carrying broadband signals. The new construction of transmission facilities that has followed the FCC's unbundling rules was for the most part built to satisfy a demand for broadband services that never materialized. The ILECs' demands that the Commission change course to create greater incentives for companies to construct still more broadband transmission facilities shows only that their advocacy has lost all touch with reality.

VII. THE COMMISSION SHOULD CONTINUE TO REQUIRE UNBUNDLING OF OSS.

Covad explained in its Opening Comments why OSS remains a prerequisite to CLEC provision of any telecommunications services. None of the ILECs quarrel with this assessment. And it is not affected by the *USTA* decision. There is simply no reason to disaggregate access to OSS on a geographic or other basis. As the FCC is well aware from its adjudications of BOC long distance applications, OSS is implemented on region-wide basis by the ILECs.

OSS must therefore remain on the national list of UNEs, as the Commission has defined it and mandated its availability in prior orders. Without access to OSS, CLECs could not even order any other UNEs from the ILECs. They could not place maintenance requests. And they would not be guaranteed auditable bills. Moreover, DLECs would not have access to the loop

qualification information needed to determine whether a line was DSL-eligible prior to placing an order. CLECs simply have no alternative but to use the ILECs' OSS.

For the reasons stated above, and in the attached declaration of Terry Murray, Covad respectfully submits that the Commission should retain its current nationwide unbundling rules as to loop transmission facilities (including lineshared loops and fiber-fed loops), interoffice transport, and OSS.

Respectfully submitted,

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